

Microsoft Dynamics CRM 2011 Walkthrough

*Part 2: Solution &
system management*

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Walkthrough Part 1

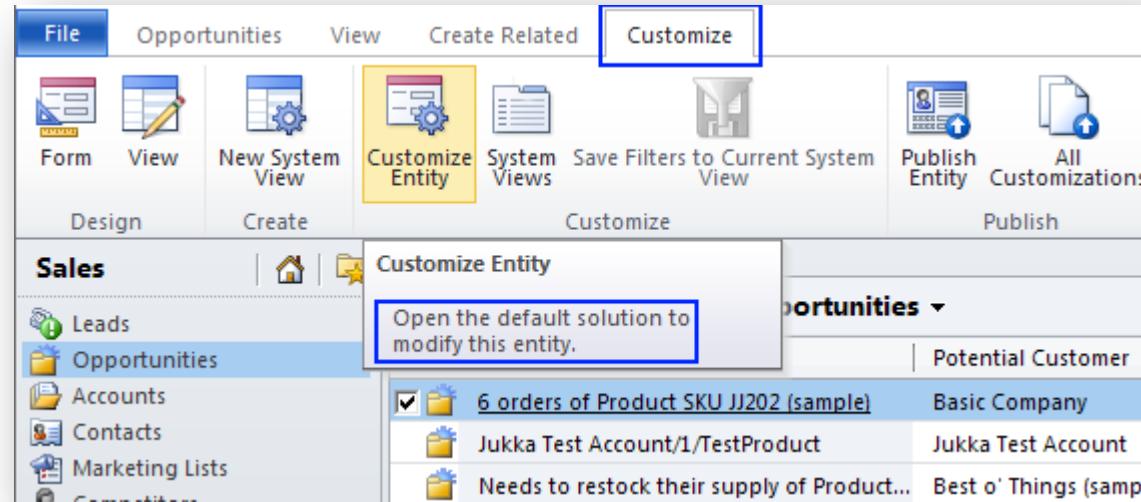
- End-user tools and UI enhancements
- Outlook client
- Form customization options
- Auditing
- Connections
- SharePoint integration
- Visualizations
- Goals

Walkthrough Part 2

- Customization menus
- UI customization options
- Solution management
- Web resources
- Processes (workflows)
- Custom activities
- Queue enhancements
- Multiple forms per entity
- Security features
- Cloud services
- Upgrading from CRM 4.0
- What's not there in 2011

Customization Menus

Ribbon access to Customizations



- Administrators now have direct access to entity, form and view customizations from the main window or detail form of a record
- Note: these shortcuts will always take you to the default solution, access to settings menu is needed for selecting which solution is to be customized

Hierarchical navigation

Account
Information

Solution: Demo Solution

Information
Components
Entities
Account

Forms
Views
Charts
Fields
1:N Relationships
N:1 Relationships
N:N Relationships
Messages

Option Sets
Client Extensions
Web Resources
Processes
Plug-in Assemblies
Sdk Message Processin...
Service Endpoints
Dashboards
Reports
Connection Roles
Article Templates
Contract Templates
E-mail Templates

General Primary Field

Entity Definition

Display Name * Account Ownership * User or Team

Plural Name * Accounts Define as an activity entity.

Name * account Display in Activity Menus

Description Business that represents a customer or potential customer. The company that is billed in business transactions.

Areas that display this entity

Workplace Sales Marketing Service
Settings Resource Center

Options for Entity

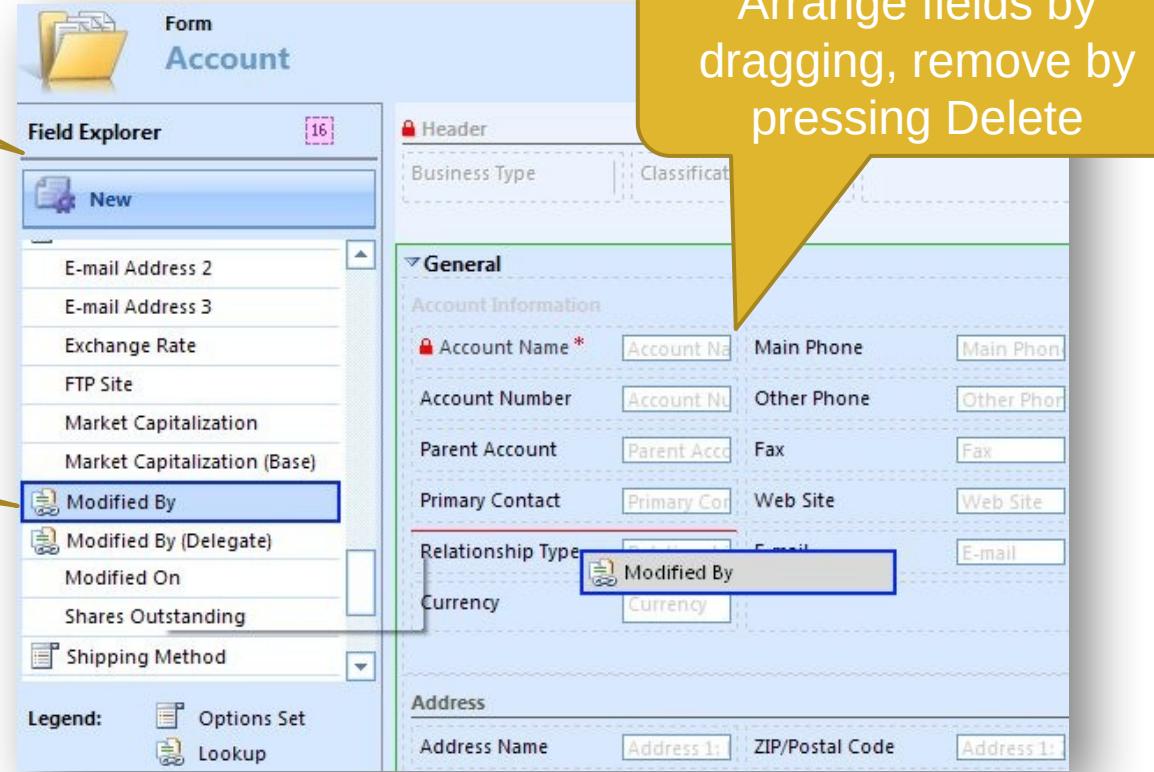
Select an option to enable the feature for this entity. After you enable these options, they can never be disabled.

Note (includes attachments)
Activities
Sending e-mail (If an e-mail field does not exist, one will be created)
Queues
Automatically move records to the owner's default queue when a record is created or assigned.

Drag & drop form editing

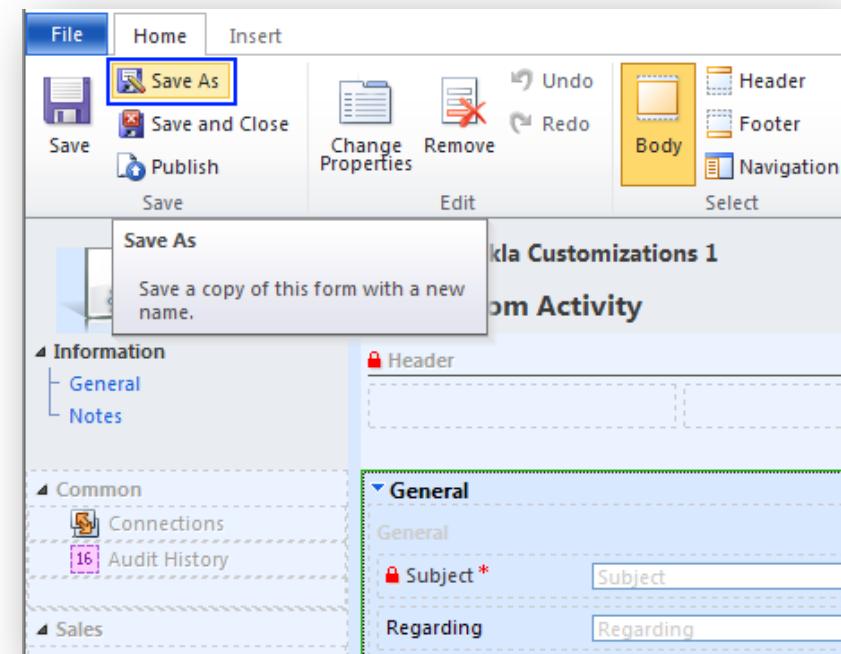
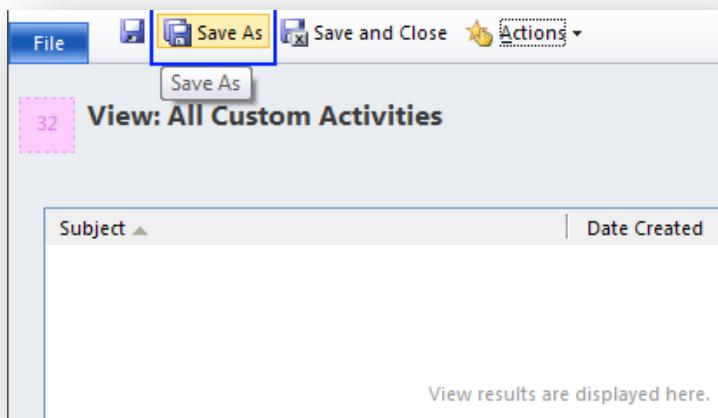
Field Explorer lists available fields and allows creation of new attributes

Drag fields directly to the form



Save As -options

- Available for views, forms, charts
- Quick way to replicate existing configurations when adding new views and forms



UI customization options

Ribbon customization

- Create custom sections and buttons to ribbons
- Default ribbon elements can be hidden or overwritten with custom elements
- No GUI editor, modifications done through XML:
 - Export the solution customizations
 - Edit the RibbonDiffXml
 - Create Web Resources for icons and scripts
 - Import solution
- Outlook 2003 and 2007 will display ribbon elements as menus, Outlook 2010 has full ribbon

Ribbon features

- Ribbon types available:
 - Entity ribbons: form, grid, subgrid
 - Web app specific: jewel ("File"), basic home tab
 - Others: dashboard, advanced find, form editor...
- Ribbon element display & enable criteria:
 - Client type, field value, form state, record privilege, grid selection count, custom rules for Javascript libraries
- Ribbon control actions:
 - Open a URL, pass parameters, call Javascript function
- Ribbon element size and scaling priority order

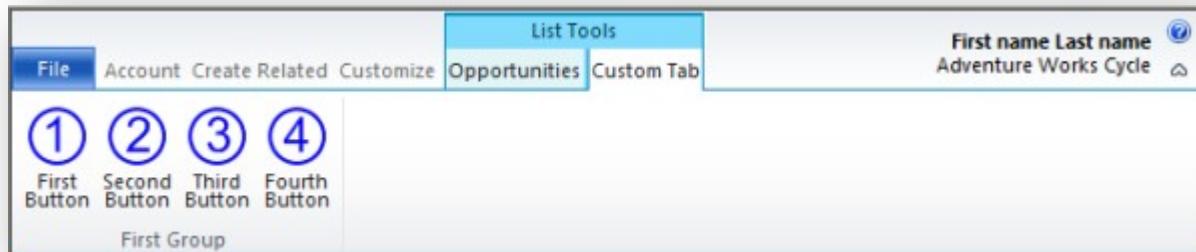
Examples of custom ribbon elements



Custom group and buttons in default layout



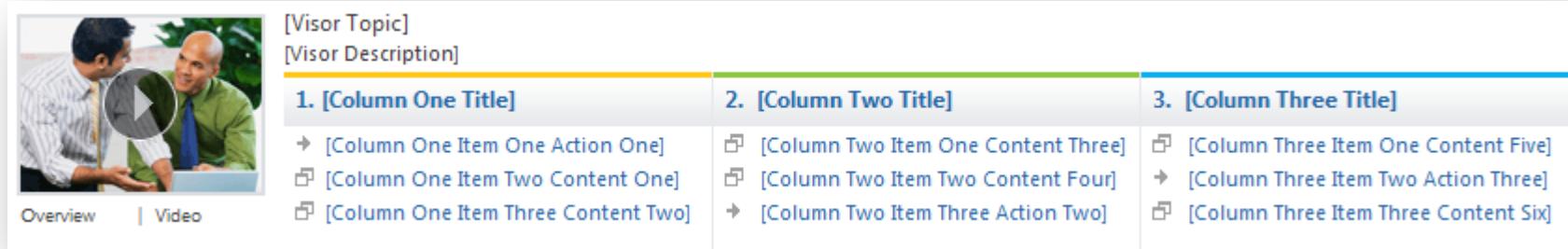
Custom group with popup button layout



Custom group in subgrid ribbon list tools

From Microsoft Dynamics CRM 2011 Beta SDK

Getting Started Pane



[Visor Topic]
[Visor Description]

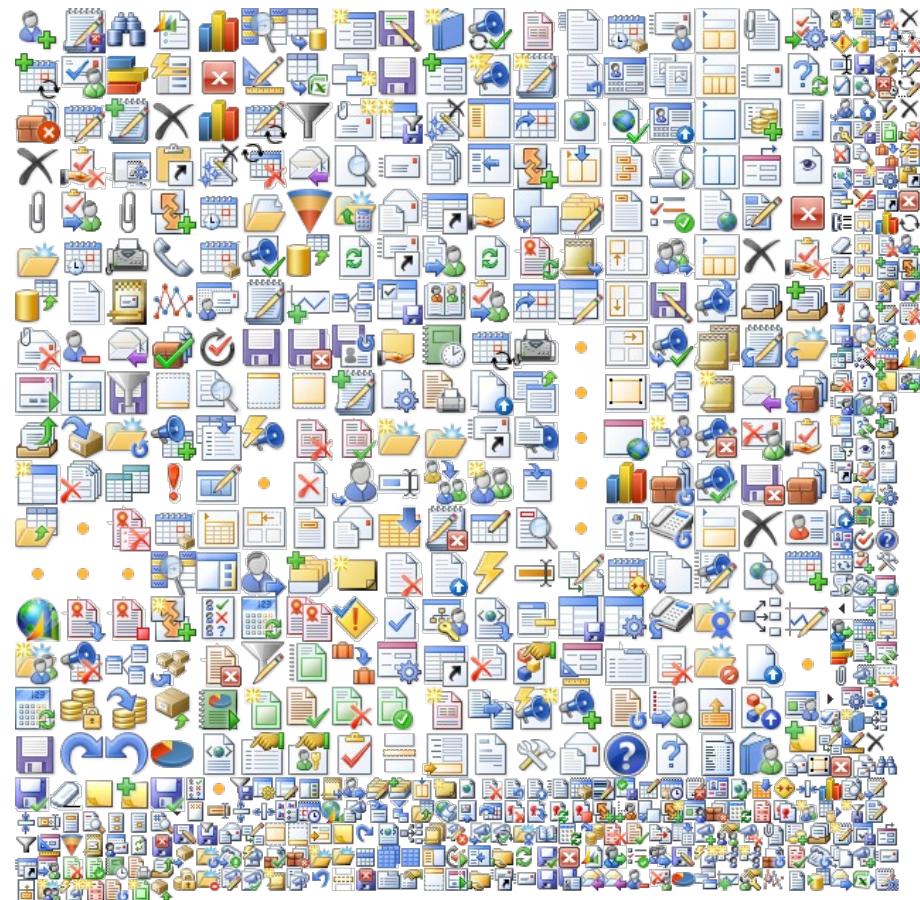
1. [Column One Title]	2. [Column Two Title]	3. [Column Three Title]
↳ [Column One Item One Action One] ↳ [Column One Item Two Content One] ↳ [Column One Item Three Content Two]	↳ [Column Two Item One Content Three] ↳ [Column Two Item Two Content Four] ↳ [Column Two Item Three Action Two]	↳ [Column Three Item One Content Five] ↳ [Column Three Item Two Action Three] ↳ [Column Three Item Three Content Six]

Overview | Video

- Getting Started Pane is available for all entities that have viewable grids in CRM UI
- Allows presenting relevant instructions on the context of the entity being viewed
- Supports HTML and Silverlight content
- Users can show/hide the pane per entity or set global preferences through Options menu
- SDK contains HelpVisorTemplate that can be used as a customization starting point for own panes

Performance with CSS sprites

- CSS sprites reduce the HTTP calls to web server, thus improving performance in WAN environment
- One image file is used to render several icons by showing only a specific region of the main sprite
- Dynamics CRM 2011 utilizes sprites like ribbon.png to load and cache all default icons
- Note: Custom icons will have a higher payload and may affect page loading times



Solution Management

Not just customizations

- In CRM 4.0, customizations and other configuration items were managed independently from one another
- In CRM 2011, solutions are bundles of components that are used for delivering specific applications/functionalities
- Each CRM organization has one default solution, in addition to which it can have multiple different solutions from different publishers

Solution components

- Schema and metadata components
 - Entities, attributes, forms, views, charts, relationships, option sets
- User interface components
 - Web resources, ribbons, sitemap, dashboards
- Code components
 - Processes, dialogs, plug-ins, custom WF activities
 - Plug-in registration is also stored in the solution
- System configuration components
 - Templates, security roles, reports, settings
 - Users and teams not included, roles need to be manually configured after solution installation

Customizing solutions in CRM

Solutions: All Solutions ▾

New | X | Import | Export | Import Translations | Export Translations | Publish All Customizations | Get Solutions from Marketplace | More Actions

Name	Display Name	Version	Installed On	Package Type	Publisher	Description
<input checked="" type="checkbox"/> DemoSolution	Demo Solution	1.0.1.1	3.10.2010	Unmanaged	CRM Testers, Inc.	Solution created for demonstration

Test
Custom
Default

Solution: DemoSolution - Microsoft Dynamics CRM - Windows Internet Explorer
https://crm4.dynamics.com/tools/solution/edit.aspx?id=%7b1EB80AD0-FFCE-DF11-80E5-00104B43E000

Solution: Demo Solution

Information

Component Type: All

Add Existing | Delete | Remove | Publish | Show Dependencies | Add Reference

	Type	State
Account	Entity	Managed
Demo	Dashboard	Unmanaged
new_	Web Resource	Unmanaged
Price	Entity	Managed
test_E	Entity	Managed
test_O	Web Resource	Unmanaged
test_T	Web Resource	Unmanaged

Components

- Entities
- Option Sets
- Client Extensions
- Web Resources
- Processes
- Plug-in Assemblies
- Sdk Message Processing...
- Service Endpoints
- Dashboards
- Reports
- Connection Roles
- Article Templates
- Contract Templates
- E-mail Templates
- Mail Merge Templates
- Security Roles
- Field Security Profiles

Add Existing

Entity
Option Set
Site Map
Application Ribbons
Web Resource
Process
Plug-in Assembly
Sdk Message Processing Step
Service Endpoint
Dashboard
Report
Connection Role
Article Template
Contract Template

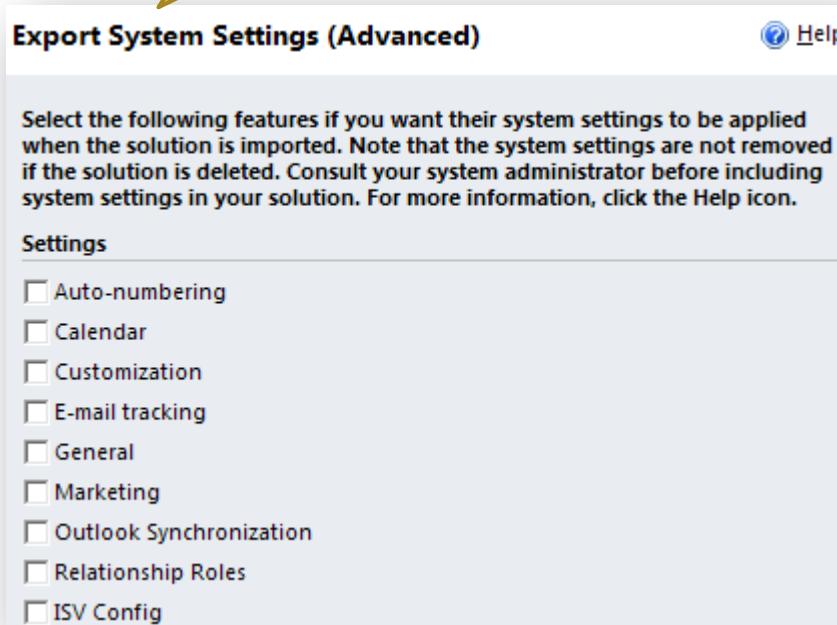
Add existing or new components to solution

Unmanaged / managed solutions

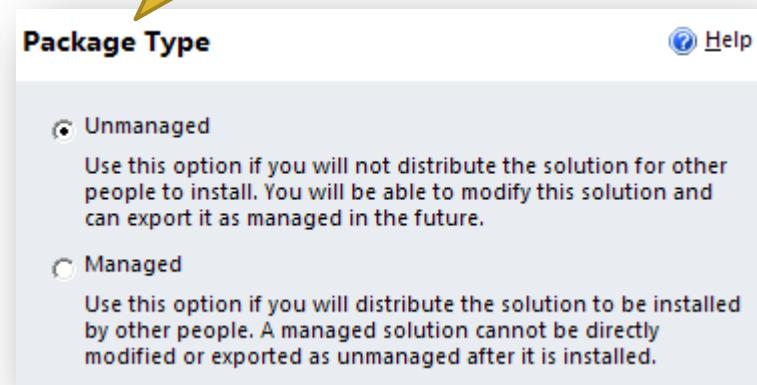
- You can only create unmanaged solutions
- Upon export you can choose to make the solution either unmanaged or managed
- Managed solutions are locked from editing
- Managed solutions each have their own “layer”, which will control adding and removing solutions to/from a system
- Unmanaged solutions cannot be uninstalled
 - Only pointers to components, not separate containers
 - You can delete the solution, but components will not be deleted from the system

Exporting a solution

Including system settings in the solution

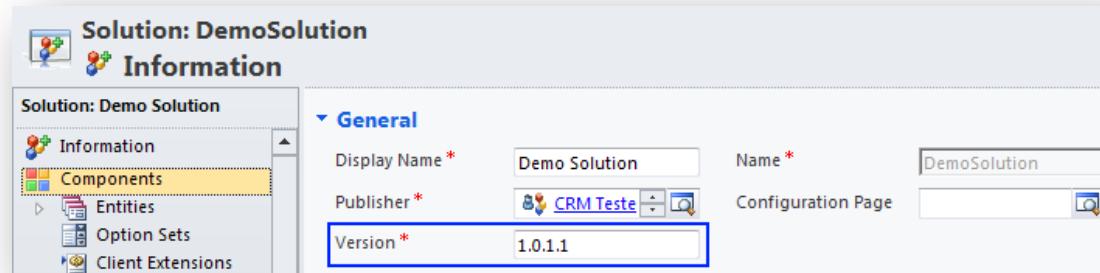


Export as unmanaged or managed solution



Updating solutions

- Managed solutions in the system can be updated with new versions of the solution file provided by the publisher
- No version control or rollback support in the CRM platform itself, needs to be managed by publisher
- Solution version numbers are simply metadata set by the publisher



Managed properties

- By default, all custom solution components are customizable
- Managed properties can be enabled per component, which will enforce customization rights once the solution is exported as managed

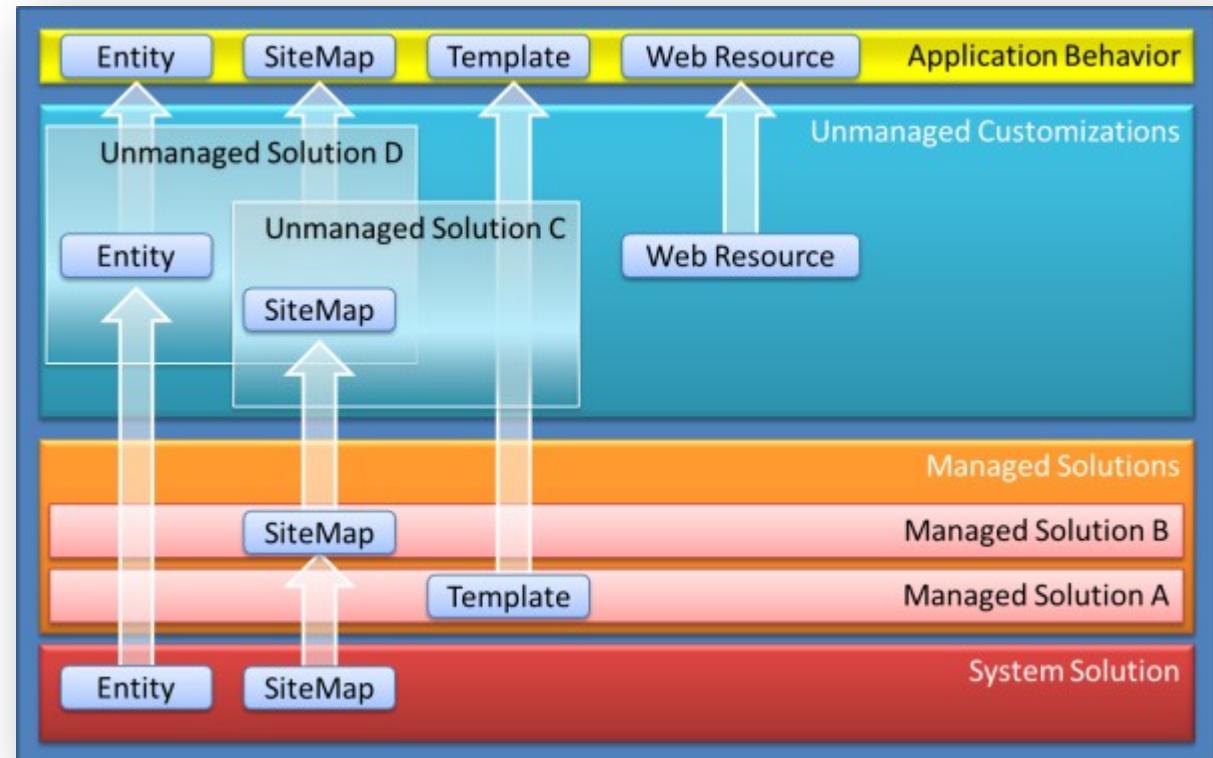
Managed Properties of Entity : Custom Activity
Set the Managed Properties of this component.

The following properties will take effect only after the component is exported and imported as part of a managed solution.

Can be customized	<input checked="" type="radio"/> True <input type="radio"/> False
Display name can be modified	<input checked="" type="radio"/> True <input type="radio"/> False
Can Change Additional Properties	<input checked="" type="radio"/> True <input type="radio"/> False
New forms can be created	<input checked="" type="radio"/> True <input type="radio"/> False
New charts can be created	<input checked="" type="radio"/> True <input type="radio"/> False
New views can be created	<input checked="" type="radio"/> True <input type="radio"/> False

Solution layering

- The active (default) solution is calculated from all the unmanaged and managed solutions applied to the system



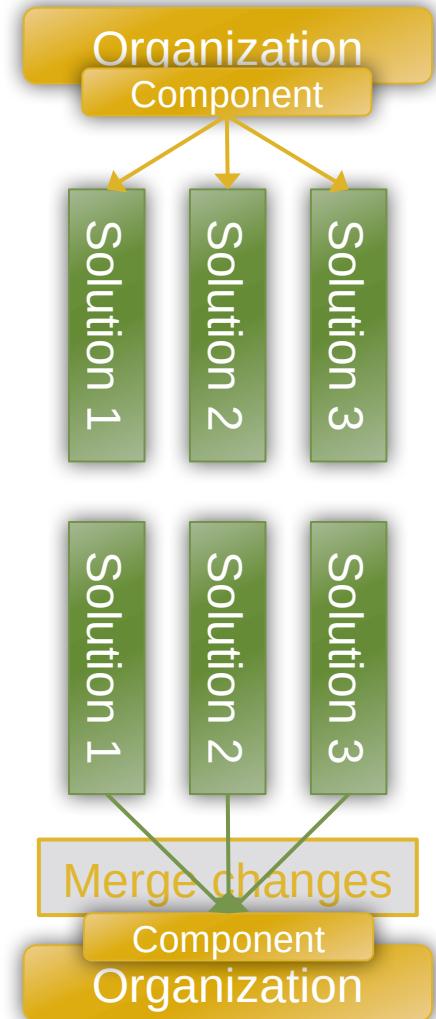
From Microsoft Dynamics CRM 2011 Beta SDK

Merging solution contents

- Solutions can and will very likely have dependencies to the same shared components
- The order of solution installations is important: **the last one wins**
- Conflicting form and SiteMap customizations can cause surprising results, which may require manual fixing after solution installation
- Option sets have value prefixes to reduce the chances of conflicts between solutions
- Ribbon customizations are defined by only stating the changed controls through RibbonDiffXml

Component export and import

- **Exporting** a solution component from an organization will contain **all the published changes**, as there is only one active component in the system at any given time (and not different versions)
- Upon **importing** solutions that update the same component, the **changes are merged** with the ones already published in the organization
- Therefore, each distinct solution that is interacting with the same components should be **developed inside a separate organization** of its own



Dependency tracking

The screenshot shows the Microsoft Dynamics CRM 2011 interface with a yellow banner at the top. The banner contains the text 'Show dependencies per component' and 'Alerts upon solution export'. A yellow arrow points from the 'Show Dependencies' button in the ribbon to the banner. Another yellow arrow points from the 'Missing Required Components' section to the banner.

Show dependencies per component

Alerts upon solution export

Account: Dependencies

Dependent components

You cannot delete this component while the following components depend on it.

	Display Name	Name/Id
<input checked="" type="checkbox"/>	Account Reconnect	Account_Recon
	account_activity_parties	account_activit
	Account_ActivityPointers	Account_Activi
	Account_Annotation	Account_Anno
	Account_Appointments	Account_Appo
	Account_AsyncOperati...	Account_Async

1 - 70 of 70 (1 selected)

Required components

When you import a solution, the required components must be present in the target organization. You cannot delete the following components while the solution being imported.

	Display Name	Name/Id
--	--------------	---------

Missing Required Components

Solution components

The following components are missing from your solution. Import will fail if these components don't exist already in the target Microsoft Dynamics CRM organization. To add the missing components to your solution, cancel import, open the solution, and click the Add Required Components button.

Display Name	Name/Id	Component Type	Parent Entity
Form	Form	System Form	Account
System Administrator	System Administrator	Security Role	
Scheduler	Scheduler	Security Role	
Lead Lookup View	Lead Lookup View	View	Lead
Open Opportunities	Open Opportunities	View	Opportunity
Top 10 Opportunities	Top 10 Opportunities	System Chart	Opportunity
Form	Form	System Form	Account
Active Services	Active Services	View	Service

Uninstall solutions

- Uninstalling an unmanaged solution will leave all the components in the system, only the solution record is removed
 - Unmanaged solutions are simply component groupings
- Uninstalling a managed solution will remove both components and data from the system
- See post from David Yack:
<http://crm.davidyack.com/journal/2010/9/20/exploring-crm-2011-solution-framework-update-scenarios.html>

Solution files

- ZIP files containing a set of XML files
- No encryption, content can be browsed by the customer also in managed solutions
- See blog post "Inside the solution XML file" by Gayan Perera for more information:
 - <http://weblogs.asp.net/gayanperera/archive/2010/09/14/peeking-into-the-dynamics-crm-2011-solution-export-file.aspx>

Nimi	Muokkauspäiväm...	Typpi	Koko
WebResources	5.10.2010 21:33	Tiedostokansio	
[Content_Types].xml	5.10.2010 21:33	XML-asiakirja	1 kt
customizations.xml	5.10.2010 21:33	XML-asiakirja	68 kt
solution.xml	5.10.2010 21:33	XML-asiakirja	8 kt

Solution layering strategies

- Evaluate the practical number of different solutions
 - More layers allow better modularity of solutions
 - ...but can make development and layer management tricky, due to number of files and organizations
- Separate CRM organization needed for publishing each individual solution layer
 - All exports are done from the unmanaged layer
- Only import managed solutions to your test environment to preserve the default (unmanaged) layer
- Automating build environments recommended to avoid mistakes of manual import process for multiple solution layers in multiple dev and test organizations

Team development strategies

- When multiple developers are customizing a single environment, MS suggest the following strategies for manage team development:
- **Single organization, one master solution**
 - Developers must work on separate components
- **Single organization, multiple developer solutions + one master solution**
 - Each developer has an unmanaged solution + reference to master solution components, no need to merge changes
- **One organization per developer**
 - Each developer has their own environment from which unmanaged solutions are imported into a master solution

From Microsoft Dynamics CRM 2011 Beta SDK

Web Resources

Contents and use cases

- Web resources represent files that would have traditionally been placed on the CRM web server
- Resource types supported:
 - Images: png, jpg, gif, ico
 - Website(app) components: html, css, javascript
 - Silverlight applications
- Enables portability of custom pages and applications by packaging the resources into the solution file
- Available also in Outlook client offline mode

Adding web resources

Solution: Demo Solution

Information
Components
Entities
Option Sets
Client Extensions
Web Resources
Processes
Plug-in Assemblies
Sdk Message Processing
Service Endpoints
Dashboards
Reports
Connection Roles
Article Templates
Contract Templates
E-mail Templates
Mail Merge Templates
Security Roles
Field Security Profiles

Component Type Web Resource

New | Add Existing | Delete | Remove | Publish | Show Dependencies

More Actions ▾

Display Name ▾

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Play Icon 32

Test Web Resource

Select solution components -- WWW-...

https://teklacorporation.crm4.dynamics.com

Select solution components
Select one or more solution components

Component Type Web Resource

Display Name ▾

Filtered Lookup Test

JavaScript

Play Icon 16

Solution: Demo Solution

Web Resource: New

General

Name * test_ TestWebResource

Display Name Test Web Resource

Description Just an HTML page.

Content

Type * Web Page (HTML)

Language

Upload File

URL

URL

Web Page (HTML)
Style Sheet (CSS)
Script (JScript)
Data (XML)
PNG format
JPG format
GIF format
Silverlight (XAP)
Style Sheet (XSL)
ICO format

Text Editor

Selaa...

Script libraries

- Javascript libraries allow the central management and re-use of scripts across different entities and forms
- Functions from the libraries can be associated with form and field events in form customization UI, while managing the code itself on the Web
- Resource hosting the library
- See blog post by Ayaz Ahmad:
 - <http://ayazahmad.wordpress.com/2010/09/25/javascript-libraries-in-microsoft-dynamics-crm-2011/>

Using Jscript libraries (1)

32

Solution: Customizations 1

Web Resource: Filtered Lookup Test

General

Name *	new_FilteredLookupTest
Display Name	Filtered Lookup Test
Description	JScript library for testing purposes.

Content

Type *	Script (JScript)	Text Editor
Language		
Upload File	Selaa...	

URL

URL	https://teklacorporation.crm4.dynamics.com
-----	---

Edit Content -- WWW-valintaikkuna

https://.crm4.dynamics.com/

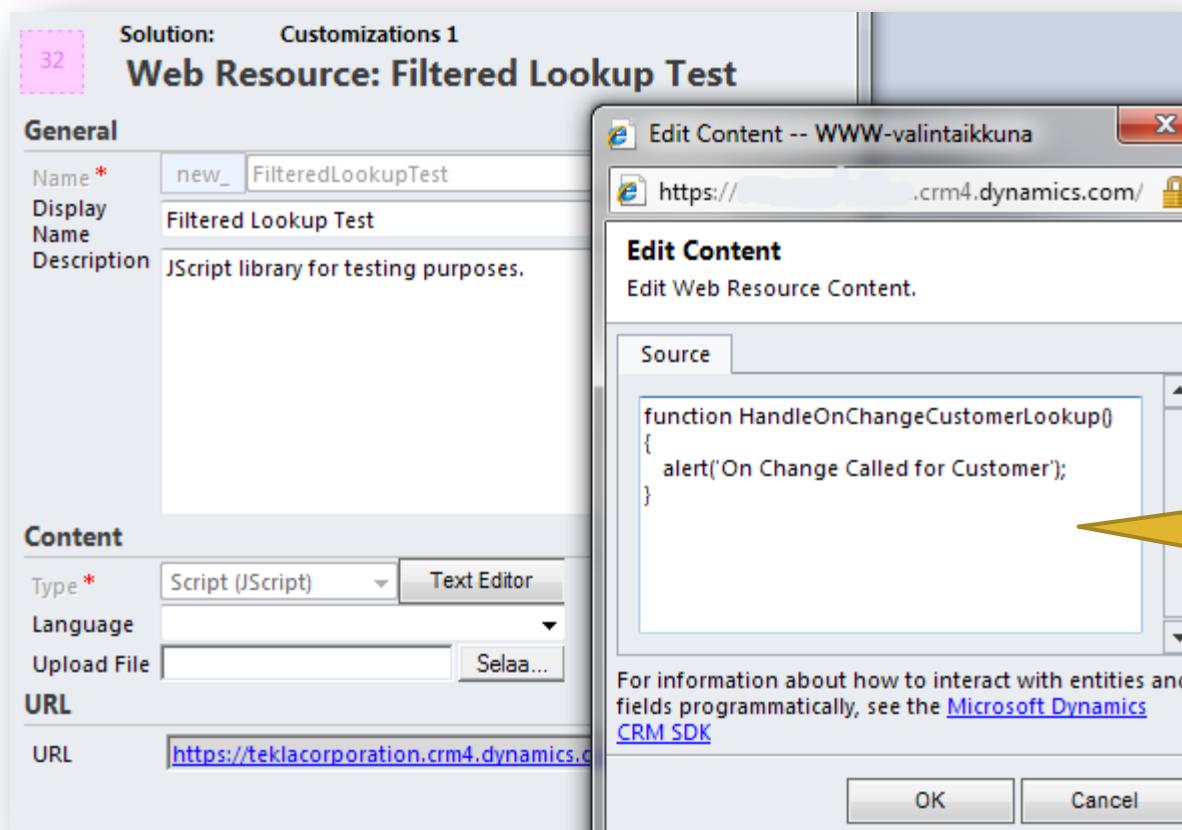
Edit Content
Edit Web Resource Content.

Source

```
function HandleOnChangeCustomerLookup()
{
    alert('On Change Called for Customer');
}
```

For information about how to interact with entities and fields programmatically, see the [Microsoft Dynamics CRM SDK](#)

OK Cancel



Upload or cut&paste
scripts into a new
Web Resource

Using Jscript libraries (2)

Field Properties

Modify this field's properties.

Display Formatting Details Events

Event List

Form Libraries

Manage libraries that will be available in the form.

Add | **Remove** | **Up** | **Down** | **Edit**

Name

new_FilteredLookupTest

Display Name

Filtered Lookup Test

Description

JScript library for...

Event Handlers

Manage functions that will be called for form or field events.

Control **Potential Customer**

Event **OnChange**

Add | **Remove** | **Up** | **Down** | **Edit** | **Edit Library**

Library

new_FilteredLookupTest

Function

HandleOnChangeCustomerLookup

Enabled

True

In form or field properties, add reference to the web resource with the script library

Handler Properties

Library **new_FilteredLookupTest**

Function * **HandleOnChangeCustomerLookup**

Enabled

Parameters

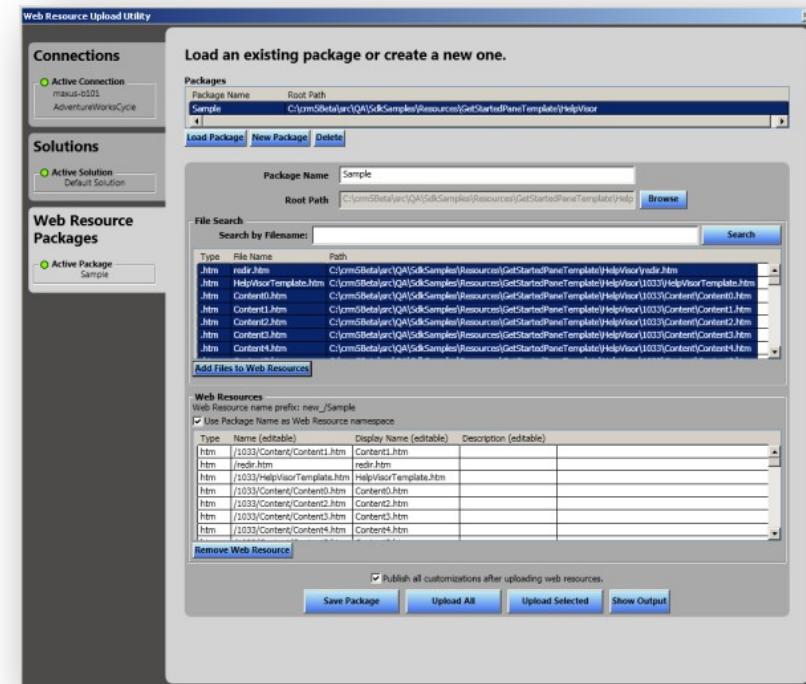
Pass execution context as first parameter

Comma separated list of parameters that will be passed to the function

Pass parameters to functions

Managing web resources

- CRM 2011 SDK contains a WPF tool called Web Resource Utility
- Can be used for building Web Resource Packages to simplify management and uploading of individual files for CRM Web Resources



Processes

(previously known as Workflows)

From workflows to processes

- Workflow concept has been replaced with Process
- Processes are split into 2 categories:
 - Workflows
 - Dialogs
- Dialogs are basically **interactive workflows** that allow the user to enter input data while the workflow logic is being executed in the background
- Whereas workflows can be started by a trigger and executed asynchronously, dialogs must be started by the user and **executed synchronously**
- In short, dialogs are the "wizard engine" for workflows

Process Center

The screenshot shows the Microsoft Dynamics CRM 2011 Process Center. On the left, the 'Settings' navigation bar is visible, with the 'Process Center' menu item selected. The main area displays the 'Processes: My Processes' list, which includes a table with columns for Process Name, Category, and Primary Entity. The table shows three entries: 'AccountTestDialog' (Dialog, Account), 'Bankrupt customer' (Dialog, Account), and 'Bankruptcy task to HQ accounting' (Workflow, Account). Below this is a 'Create Process' dialog box. The dialog has fields for 'Process name:' (set to 'Demo Dialog'), 'Entity:' (set to 'Account'), and 'Category:' (a dropdown menu showing 'Workflow' and 'Dialog', with 'Dialog' selected). A large yellow callout bubble points to the 'Category:' dropdown in the 'Create Process' dialog, with the text: 'Also the Process Designer UI is common to both Workflows and Dialogs'. Another yellow callout bubble points to the 'Process Center' menu item in the navigation bar, with the text: 'Dialogs and Workflows have similar presentation in the CRM UI under Process menus'.

Processes: My Processes

Process Name	Category	Primary Entity
AccountTestDialog	Dialog	Account
Bankrupt customer	Dialog	Account
Bankruptcy task to HQ accounting	Workflow	Account
Lead source test	Workflow	

Process: New -- WWW-valintaikkuna

https://tekla.corporation.crm4.dynamics.com/sfa/workflow/workflowTemplate

Create Process

Create a new process definition or a process based on an existing template. There are two categories of processes you can create, dialogs and workflows.

Process name: * Demo Dialog Entity: Account

Type: New blank process

Category: Workflow Dialog

No process template records are available in t

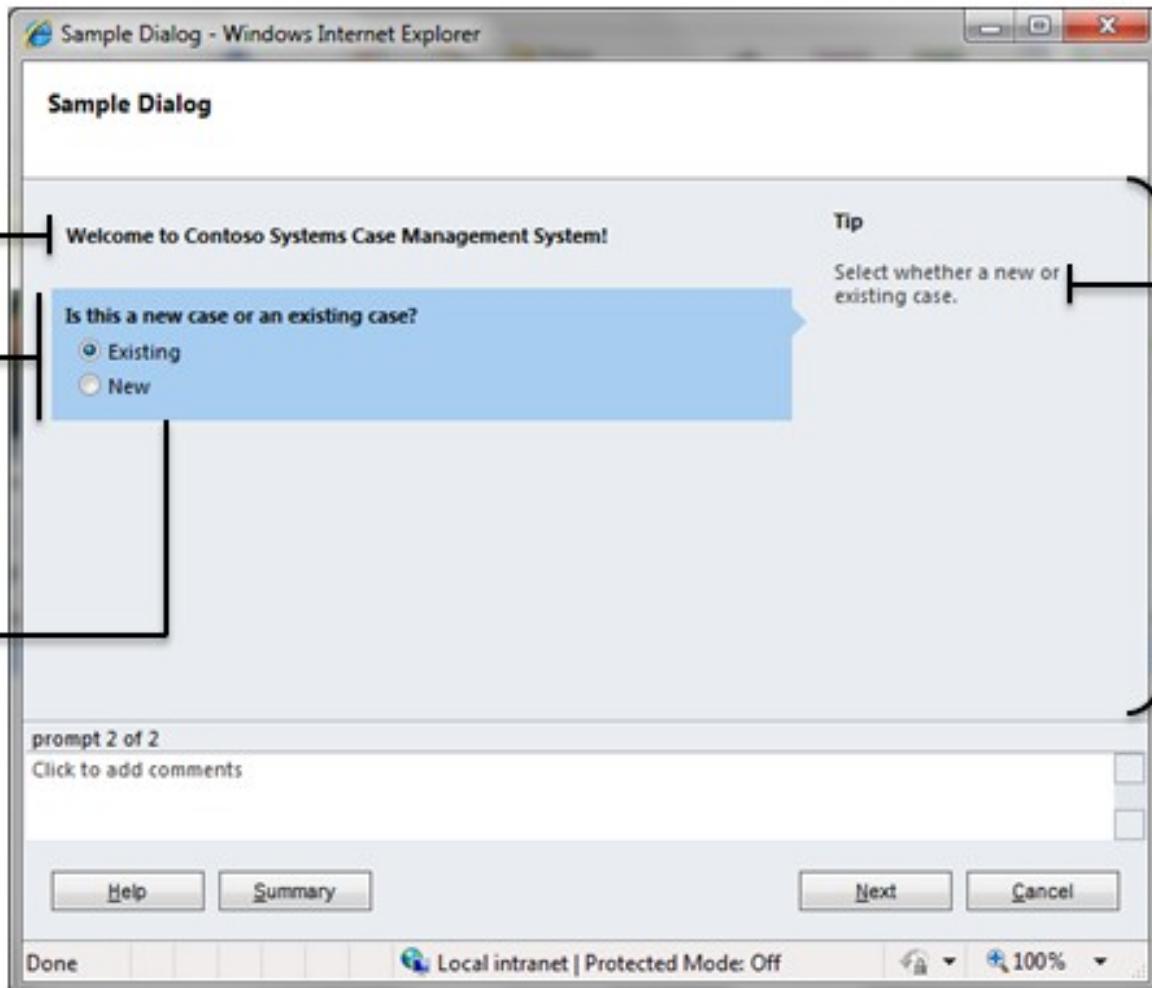
Process Center

Processes

Dialogs and Workflows have similar presentation in the CRM UI under Process menus

Also the Process Designer UI is common to both Workflows and Dialogs

Dialog page components



The screenshot shows a 'Sample Dialog' window in Internet Explorer. The window title is 'Sample Dialog - Windows Internet Explorer'. The main content area displays a welcome message and a prompt asking 'Is this a new case or an existing case?' with 'Existing' selected. A 'Tip' section on the right provides instructions: 'Select whether a new or existing case.' The window includes standard buttons at the bottom: 'Help', 'Summary', 'Next', 'Cancel', and 'Done'. A status bar at the bottom right shows 'Local intranet | Protected Mode: Off' and a zoom level of '100%'. Callout lines from the text annotations point to specific elements: one line points to the 'Tip' section, another to the 'Existing' radio button, and a third to the 'Tip' text itself. A large bracket on the right side of the window is labeled 'Page'.

Prompt and Response with Response Type = 'None'

Prompt and Response with Response Type = 'Radio Button'

The current Prompt and Response is highlighted.

The Tip section displays the tip text for the current Prompt and Response.

Tip

Select whether a new or existing case.

Page

From Microsoft Dynamics CRM 2011 Beta SDK

Dialog process conditions

Dialog page 1 with
2 input prompts

Dialog page 2
shown based on
page 1 response

Continue the process
asynchronously in a
child workflow



Dialog prompt options

General

Statement Label *

Prompt Details

Prompt Text *

Tip Text

Response Details

Response Type

Log Response Yes No

Data Type

Default Value

Provide Values Define Values Query CRM data

Response Values

Value *

Label *

Form Assistant

Dynamic Values

Dynamic Values

Operator: Set to

Look for: Dialog

Primary Entity

- Account
- Created By (Delegate) (User)
- Created By (User)
- Currency (Currency)
- Master ID (Account)
- Modified By (Delegate) (User)
- Modified By (User)
- Originating Lead (Lead)
- Owner (Owner)
- Owning Business Unit (Business)
- Owning Team (Team)
- Owning User (User)
- Parent Account (Account)
- Preferred Facility/Equipment (Fac)
- Preferred Service (Service)
- Preferred User (User)
- Price List (Price List)
- Primary Contact (Contact)
- Territory (Territory)

Local Values

- Dialog
- Process

Insert hyperlinks to instructions

Collect response data as picklist, nvarchar or ntext

Type in list of values or query CRM data

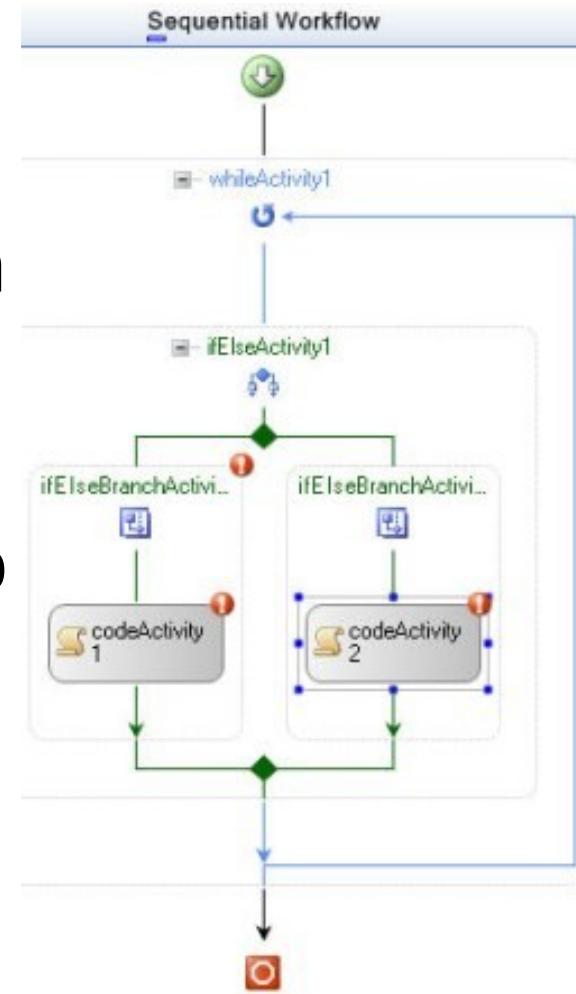
Insert dynamic values to text

Examples of Dialog use cases

- Replace the built-in dialog windows such as "convert lead" or "close opportunity" with custom logic, also replace the ribbon buttons with references to custom Dialogs
- Guide the user in new record creation process by showing instructions in prompts
- Force the input of several required variables and descriptions when updating a field that is disabled on the entity form

Processes for developers

- .NET Framework 4.0 workflows
- Create custom workflow activities
- Fully declarative XAML modeling in WF 4 (workflows & activities)
- Single XAML file
- Modifications through Visual Studio 2010 Workflow Designer
- Not supported for CRM Online



Process administration

System Job: Contacts

Information

General

Name: Contacts

Type: Matchcode Upd

Regarding:

Created On: 24.10.2010

Job Owner: SYSTEM

Completed On: 24.10.2010

Retry Count: 0

Message:

```
<OrganizationServiceFault xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://schemas.microsoft.com/xrm/2011/Contracts">
<ErrorCode>-2147204784</ErrorCode>
<ErrorDetails
  xmlns:d2p1="http://schemas.datacontract.org/2004/07">
<Message></Message>
<Timestamp>2010-10-24T16:45:54.7431537Z</Timestamp>
<InnerFault>
<ErrorCode>-2147204784</ErrorCode>

```

System job error details visible in UI

Process: Queue Item notification

Information

Common

Information

Working on solution: Default Solution

General

Administration

Notes

Owner: First Last

Description: This is a demo workflow on Queue Items, to pass on worker information.

Workflow Job Retention

Automatically delete completed workflow jobs (to save disk space)

Completed system job deletion can be set per workflow, to manage AsyncOperationBase table size

Upgrade from CRM 4.0

- Running workflow instances will be upgraded to .NET 4 during server/organization upgrade
- Custom workflow activities written for CRM 4.0 in .NET 3 are wrapped into .NET 4 interop activity

Notes on processes

- Processes can be called through URL in a custom ribbon button
- Combined with the new queues and custom activities in CRM 2011, processes and dialogs provide "a better work management story" for visualizing business process automation in CRM UI

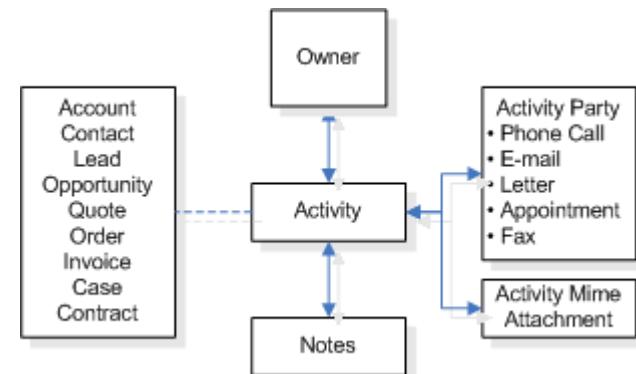
Dialog limitations

- Dialog prompts do not support many native CRM form attribute types:
 - Bit, date, lookup...
- Fields cannot be set as mandatory
- Dialogs cannot be paused/resumed
- Option sets cannot be queried in a Dialog
- Custom UI's cannot be embedded into Dialog pages (iframe/Silverlight/etc.)

Custom Activities

Features

- Possible use cases:
 - Extending messaging types (IM, SMS etc.)
 - Work orders or other process specific activities
- Support for all the different activity participant types available in out-of-the-box entity types
 - Customer, To, From, Cc, Required, Optional, Resource etc.
- Display child record activities in account/opportunity roll-up views



From Microsoft Dynamics CRM 2011 Beta SDK

Creating a custom activity

General Primary Field

Entity Definition

Display Name * Custom Activity Ownership * User or Team

Plural Name * Custom Activities

Name * new_customactivity

Description Testing out the creation of a custom activity entity.

Define as an activity entity.

Display in Activity Menus

Define entity type as activity upon creation and set visibility

Custom Activity Fields

Solution: Default Solution

View: All

	Name	Display Name	Type
<input type="checkbox"/>	bcc	BCC	partylist
<input type="checkbox"/>	cc	CC	partylist
<input type="checkbox"/>	createdby	Created By	Lookup
<input type="checkbox"/>	createdon	Date Created	Date and Time
<input type="checkbox"/>	createdonbehalfby	Created By (Del...)	Lookup
<input checked="" type="checkbox"/>	customers	Customers	partylist
<input type="checkbox"/>	description	Description	Multiple Lines o...
<input type="checkbox"/>	exchangerate	Exchange Rate	Decimal Number
<input type="checkbox"/>	from	From	partylist
<input type="checkbox"/>	importsequencenumber	Import Sequenc...	Whole Number
<input type="checkbox"/>	instancetypecode	Recurring Insta...	Option Set
<input type="checkbox"/>	isbilled	Is Billed	Two Options
<input type="checkbox"/>	isregularactivity	Is Regular Activity	Two Options
<input type="checkbox"/>	isworkflowcreated	Is Workflow Cre...	Two Options
<input type="checkbox"/>	modifiedby	Modified By	Lookup
<input type="checkbox"/>	modifiedon	Last Updated	Date and Time
<input type="checkbox"/>	modifiedonbehalfby	Modified By (De...)	Lookup
<input type="checkbox"/>	optionalattendees	Optional Atten...	partylist
<input type="checkbox"/>	organizer	Organizer	partylist
<input type="checkbox"/>	overriddencreatedon	Record Created ...	Date and Time
<input type="checkbox"/>	ownerid	Owner	Owner
<input type="checkbox"/>	owningbusinessunit	Owning Busine...	Lookup
<input type="checkbox"/>	owningteam	Owning Team	Lookup
<input type="checkbox"/>	owninguser	Owning User	Lookup
<input type="checkbox"/>	partners	Outsource Ven...	partylist
<input type="checkbox"/>	prioritycode	Priority	Option Set
<input type="checkbox"/>	regardingobjectid	Regarding	Lookup
<input type="checkbox"/>	requiredattendees	Required Atten...	partylist

Partylist attributes will be created for each custom entity by default

Example of a custom activity

Convert activity to other records

Send activity to queue

Manage activity parties

Custom Activity

Custom activity for an account

Custom Field (FLS)

Date Created: 23.10.2010 18:02

Created By: Jukka Niiranen

General

Subject*: Custom activity for an account

Regarding: Another Test Account

To: Jukka Niiranen

Priority: Normal

Start Date: 23.10.2010

Due Date: 30.10.2010

Description: Yes we can

Notes

Add a new note...

Title: Note created on 23.10.2010 18:03 by Jukka Niiranen
23.10.2010 16:03 by Jukka Niiranen
Note this

Edited 23.10.2010 16:03 by Jukka Niiranen

Activity Status: Open

Last Updated: 23.10.2010 18:02

Modified By: Jukka Niiranen

Managing custom activities

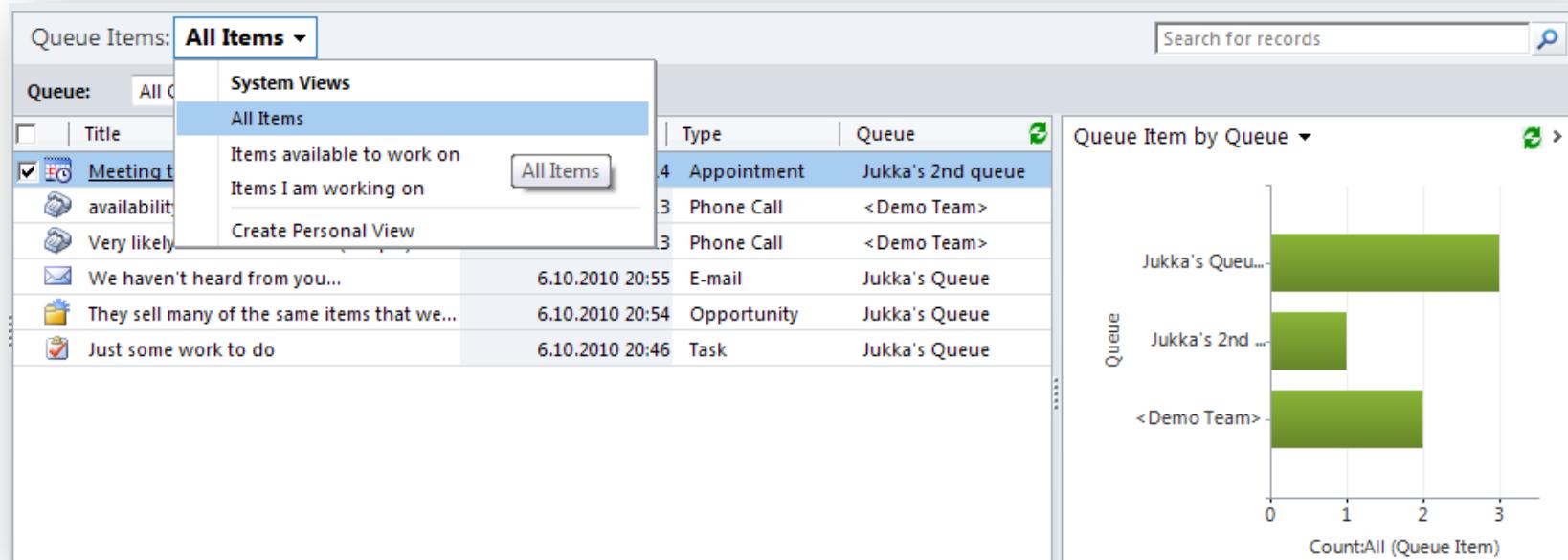
The screenshot shows the Microsoft Dynamics CRM 2011 interface. The top navigation bar has tabs: File, Account, Create Related, and Customize. The 'Create Related' tab is selected, highlighted in blue. Below the tabs is a toolbar with icons for Attach File, Add Note, Task, E-mail, Phone Call, Letter, Fax, Appointment, Recurring Appointment, Service Activity, and Other Activities. A callout bubble points to the 'Other Activities' button, which is highlighted with a blue box and has a dropdown menu open. The dropdown menu lists: All, Task, Fax, Phone Call, E-mail, Letter, Appointment, Service Activity, Campaign Response, Campaign Activity, Recurring Appointment, and Custom Activity. The 'Custom Activity' option is also highlighted with a blue box. The main content area shows an 'Information' section for an 'Account' named 'Another Test Account'. Below this is a list titled 'Activities: Open Activities'. The list is filtered by 'Due: All' and 'Type: All'. It contains several items, with the first one, 'Access to power negotiated (sample)', having a checked checkbox and being highlighted with a blue box. A callout bubble points to this item with the text 'View open activities'. The list includes: 'Access to power negotiated (sample)', 'Agree to above in Sponsor letter (sample)', 'Another activity for an Order', 'Another custom activity, for an Opportunity', 'Asked for business (sample)', 'availability of Product catalogs (sample)', 'Call and say hi', 'Cancel all subscriptions for Another Test Account', 'Check sales literature for recent price list (sample)', and 'Custom activity for an account'. Each item shows the account name, activity type, status, and priority.

Activity	Account	Type	Status	Priority
Access to power negotiated (sample)	Jukka Test Account	Phone Call	Open	Normal
Agree to above in Sponsor letter (sample)	Another Test Account	Task	Open	Normal
Another activity for an Order	Jukka Test Account	Appointment	Open	Normal
Another custom activity, for an Opportunity	Jukka Test Account	Service Activity	Open	Normal
Asked for business (sample)	Jukka Test Account	Campaign Response	Open	Normal
availability of Product catalogs (sample)	Jukka Test Account	Campaign Activity	Open	Normal
Call and say hi	Jukka Test Account	Recurring Appointment	Open	Normal
Cancel all subscriptions for Another Test Account	Another Test Account	Custom Activity	Open	Normal
Check sales literature for recent price list (sample)		Task	Open	Normal
Custom activity for an account	Another Test Account	Custom Activity	Open	Normal

Queue enhancements

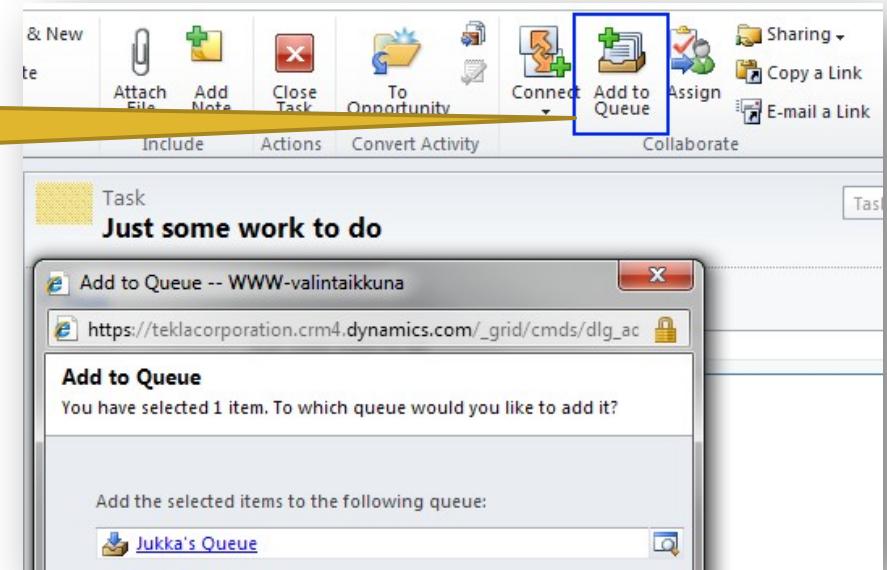
Queues in CRM 2011

- All customizable entities can be enabled for queues
- By default, queues are automatically generated for users, teams and business units
 - All of these can also be used for managing user rights

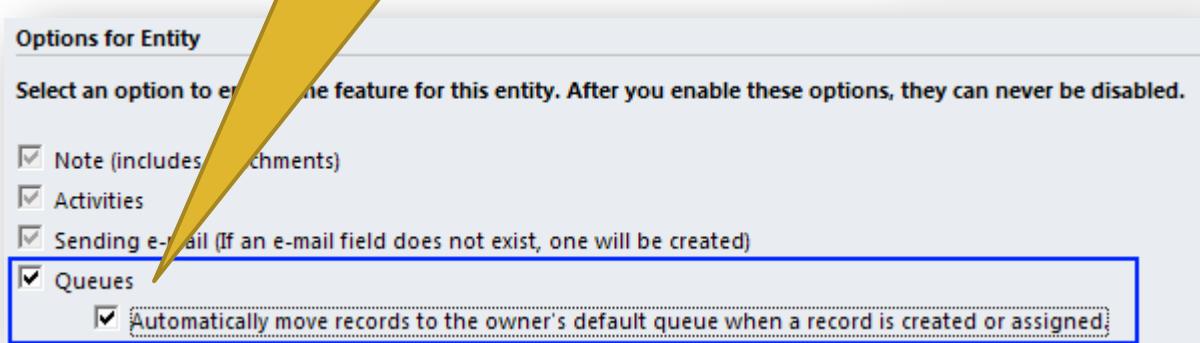


Adding record to queue

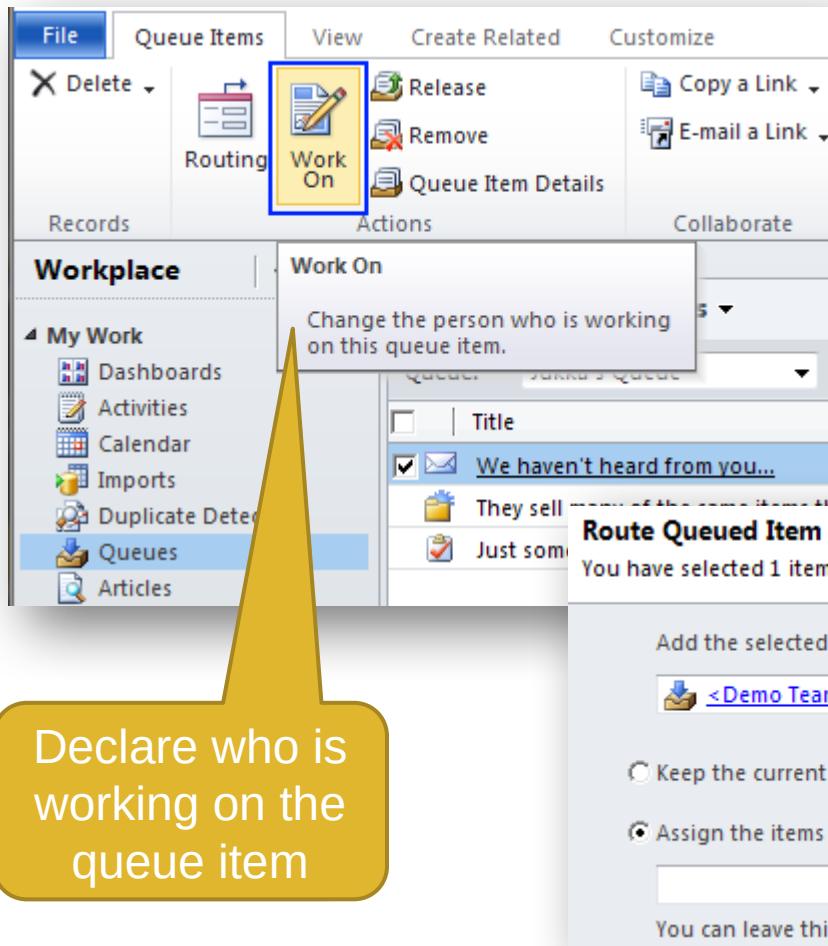
Manually add records to queue



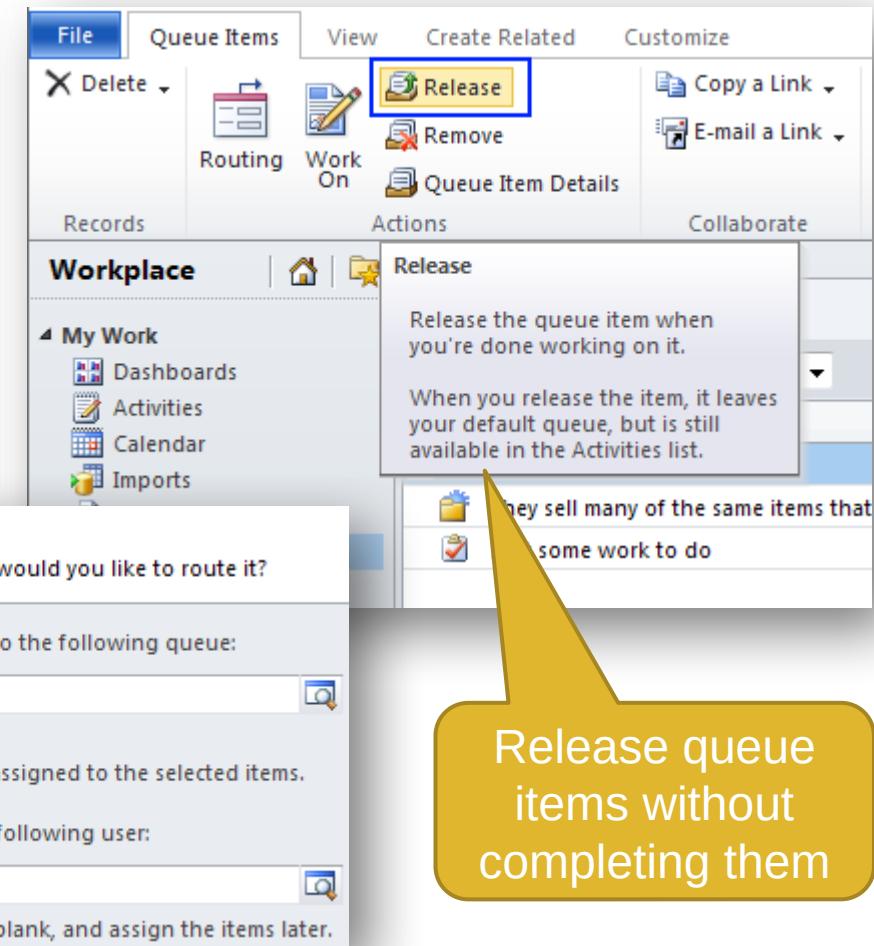
Set all created & assigned records to appear in owner's queue automatically



Actions on queue items

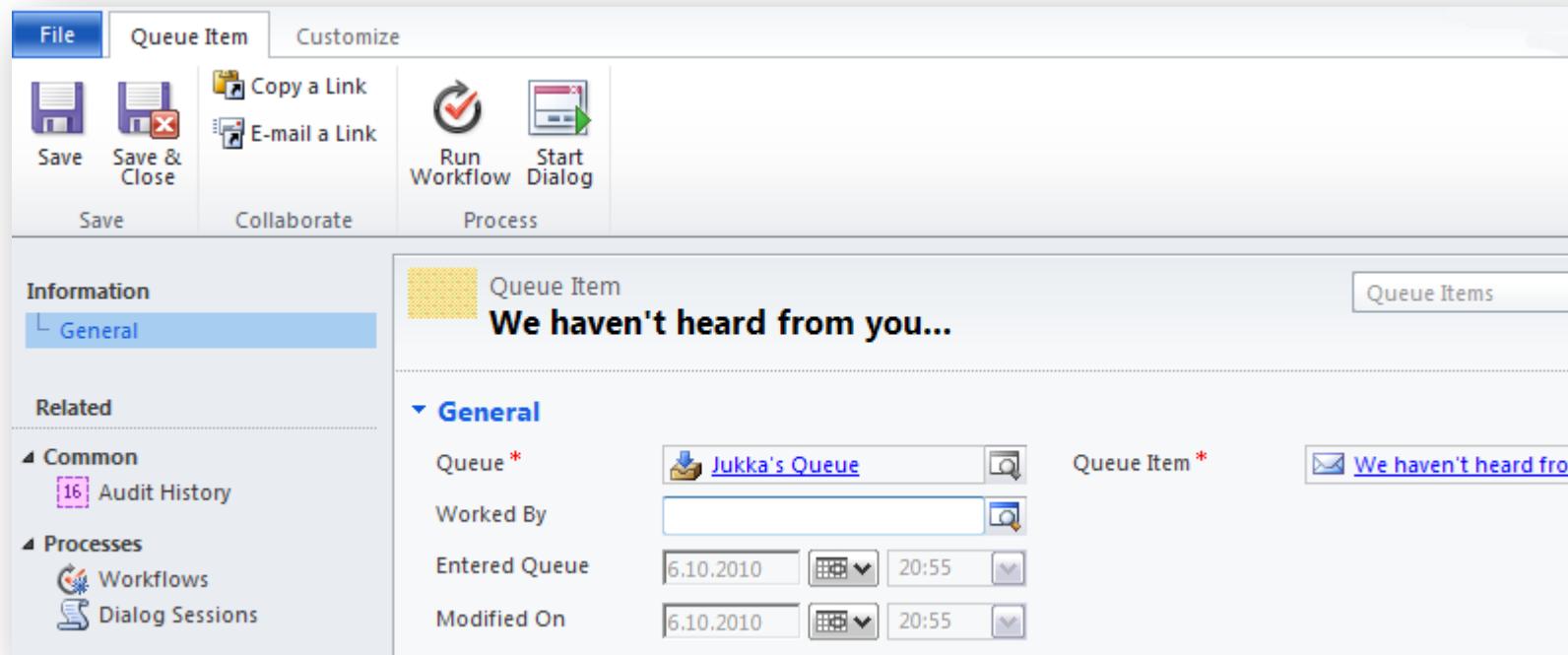


Declare who is working on the queue item



Release queue items without completing them

Queue item entity



File Queue Item Customize

Save Save & Close Copy a Link E-mail a Link Run Workflow Start Dialog

Save Collaborate Process

Information Queue Item
General

Related

Common Audit History

Processes Workflows Dialog Sessions

We haven't heard from you...

General

Queue * Queue Item *

Worked By

Entered Queue

Modified On

Workflows can be triggered based on queue item creation / update

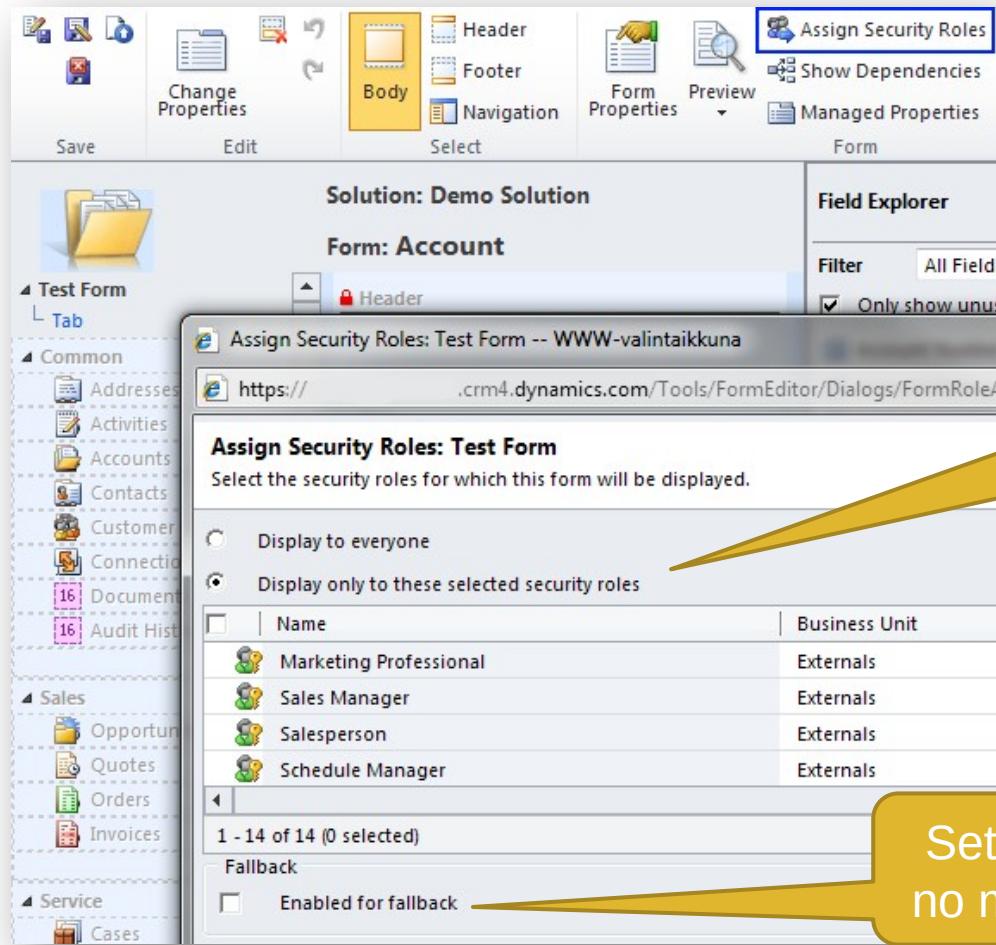
Check that someone is working on the item
Wait until Queue Item:Worked By contains data, then:
Create a task with worker info
Create: Task View properties

Multiple forms per entity

Role based forms

- Entities can now have more than one form
- Existing forms can be copied to create variations
- The form presented to a user is determined by the security roles assigned to available forms
- No support for "rule based forms", i.e. showing a form based on entity variable data
 - Show/hide scripts still needed to achieve the functionality

Managing form security roles



Determine security roles that are allowed to view the form

Set fallback form when no matching roles found

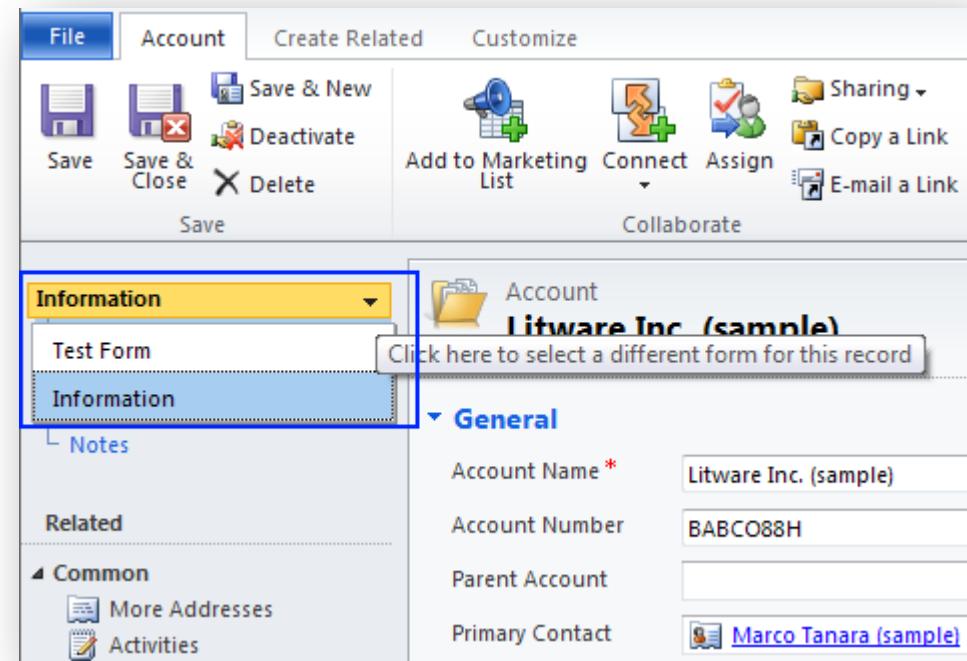
Managing form order

Define form display priority order when roles allow viewing multiple forms

Name	Form Type	State	Customizable	Parent Form
Test Form	Main	Unmanaged	True	
Information	Main	Managed	True	
Information	Mobile	Managed	True	

Form selector

- When a user has the security roles that allow viewing more than one form, a form selector will be shown
- Form can be changed with onLoad script
 - Note: will cause the form to load again (and the onLoad event...)

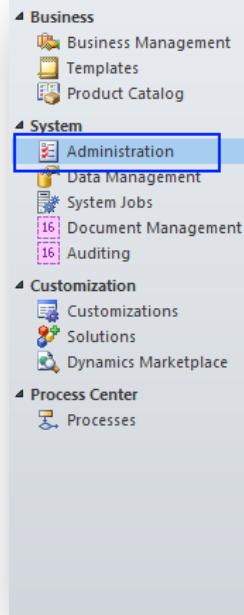


Security features

Field Level Security

- In addition to entities and forms, data visibility in CRM 2011 can be controlled also per field
- Applies to all components (reports, filtered views), data is never sent to client without access rights
- Field Security is not available for standard fields, such as contact address & name

Enabling field security



The screenshot shows the 'new_customfield' entity customization form. In the 'Field Security' section, the 'Enable' radio button is selected. Other fields in this section include 'Display Name' (Custom Field), 'Name' (new_customfield), and 'Requirement Level' (No Constraint). Below this, the 'Searchable' field is set to 'Yes'.

Enable Field Security in entity customizations

The screenshot shows the 'Field Security Profile: Custom security profile' page. In the 'Users' section, 'Jukka Niiranen' is listed under 'User Associated With'. The 'Members' section shows 'Teams' and 'Users' as categories. The 'Field Permissions' section is also visible.

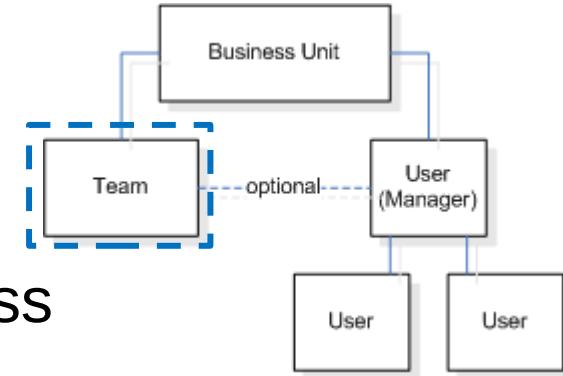
Create a Field Security Profile and assign it to users or teams

The screenshot shows the 'Edit Field Security' dialog for the 'new_customfield' field. The 'Read' checkbox is selected, with the description 'Users can view this field'. Other checkboxes available are 'Update' (Users can change the information in this field) and 'Create' (Users can add information to this field when the record is created).

Set access rights per profile

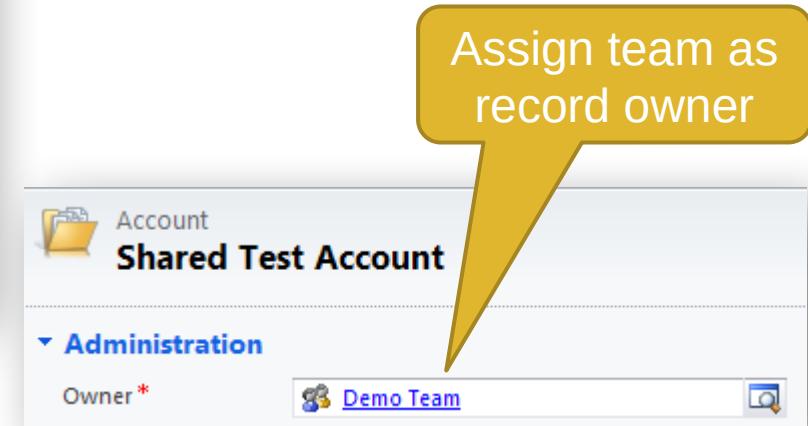
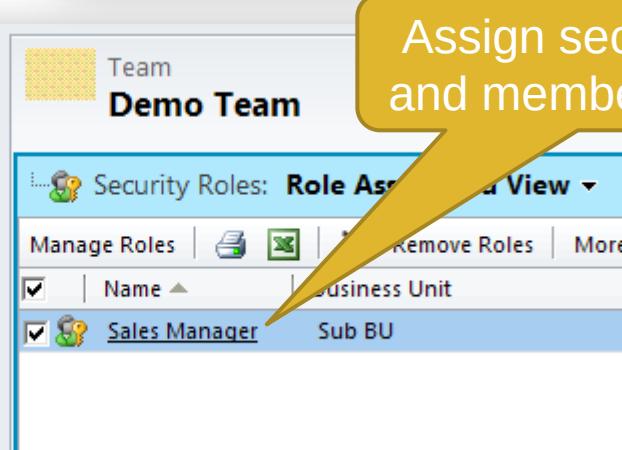
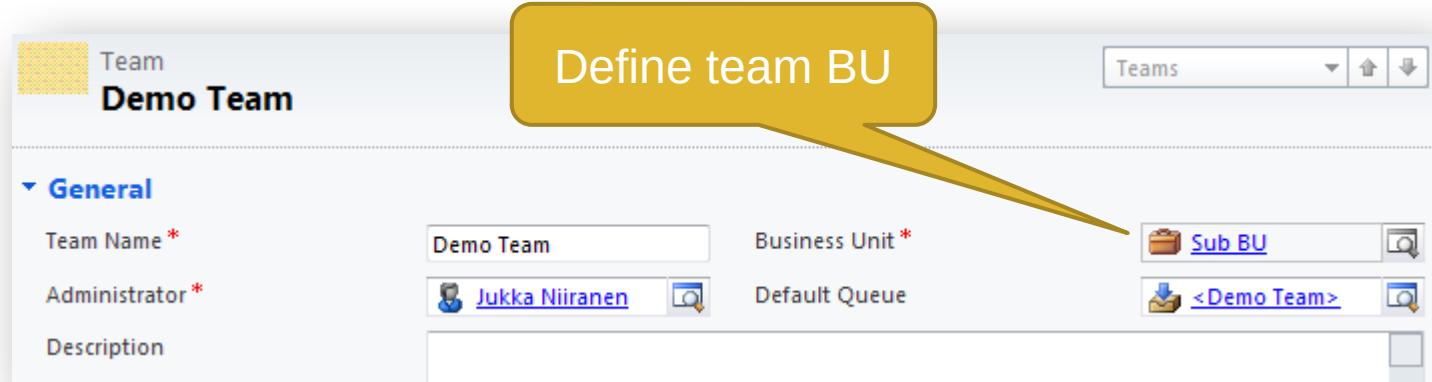
Team ownership

- New features:
 - Assign security roles to an entire team
 - Teams can own records
 - There is a default team for each business unit. All users in a business unit are members of this team
 - Access checks are **additive**. You can access entities based on the roles assigned to the user plus the roles assigned to the team a user is a member of. This allows a user to have privileges outside their business unit
 - Teams can be deleted



From Microsoft Dynamics CRM 2011 Beta SDK

Assigning records to teams



CRM Online enhancements

Code on the server

- Plug-in deployment to CRM Online allowed with isolated mode (sandbox)
 - Cannot access files, event log, network, etc.
- Custom workflow activities are not supported
- Plug-ins can consist of only a single assembly .dll
- Plug-in statistics available for monitoring the behavior of individual plug-ins in a hosted environment
 - Execution count, failure count, crash count

Custom applications

- Web Resources in solutions cannot execute code
- No support for .aspx pages, MS suggested solution is to host these pages on Azure
- Custom UI's could be built with HTML/jQuery or Silverlight, to allow packaging and distribution inside the solution file

Custom reports

- Custom SSRS reports can be uploaded to CRM Online
- However, no direct access is allowed to database views = no SQL data sources can be used
- FetchXML will be the primary method for building custom reports for CRM Online
- Runtime component available for SSRS, Fetch Authoring Extension for VS
- See post on MS CRM Team Blog for details:
 - <http://blogs.msdn.com/b/crm/archive/2010/10/19/getting-started-with-custom-reports-in-the-cloud.aspx>

Dynamics Marketplace

Marketplace features

- Integrated into the Settings menu in CRM
- Built on the existing Microsoft Pinpoint site
- Listings for add-on applications, professional services, hosting services
- CRM 2011 is not a requirement, thus available also for add-on applications that are not delivered as solution packages
- Initially no eCommerce functionality available for purchase and payment transactions

Marketplace in CRM

Settings | [Home](#) | [Star](#)

Dynamics Marketplace

Popular **Newest**

 **ADVANTAGE RMI Corpora**

 **Apparel and Sunrise Tech**

 **Asset Management StarDyne Te**

 **BRIX 2009 Aurigo Software Technologies Inc**

Microsoft Dynamics Marketplace Beta

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Establish a strong foundation for e-mail hosting and management. Better organize your e-mails and improve e-mail filtering practices for more efficient communications.

Apps Found: 4

 **Email Marketing for Microsoft Dynamics CRM** ★★★★☆(1)
Online Application & On-premises Application by: [CoreMotives](#)
Price: **For Purchase**
Send bulk email marketing from within Microsoft CRM and immediately know who is clicking and viewing your web pages. - Easily create professional-looking emails in minutes - Track clicks, bounces, unsubscribes, web visits - Save money by having all sends & responses... [Read more](#)

Product/Platform: Windows Azure Platform

Categories: Marketing Communications, Web Analytics, Usability Testing, E-mail Hosting and Management

ConnectED (0 Reviews)
Online Application by: [SRC Technology Solutions](#)
Price: **For Purchase**
ConnectED helps your organization to improve collaboration and drive real-world results by adopting a Customer Relationship Management (CRM) approach to the business of Industry Attraction and Business Retention / Expansion. The solution set was initially designed for the... [Read more](#)

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0/5 

Microsoft Dynamics Marketplace Beta

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Apps Found: 4

 **Email Marketing for Microsoft Dynamics CRM** ★★★★☆(1)
Online Application & On-premises Application by: [CoreMotives](#)
Price: **For Purchase**
Send bulk email marketing from within Microsoft CRM and immediately know who is clicking and viewing your web pages. - Easily create professional-looking emails in minutes - Track clicks, bounces, unsubscribes, web visits - Save money by having all sends & responses... [Read more](#)

Product/Platform: Windows Azure Platform

Categories: Marketing Communications, Web Analytics, Usability Testing, E-mail Hosting and Management

ConnectED (0 Reviews)
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Email Marketing for Microsoft Dynamics CRM

by CoreMotives

APP TYPE:	Online Application, On-premises Application
CATEGORY:	Marketing Communications, Web Analytics, Usability Testing, E-mail Hosting and Management
WORKS WITH:	Microsoft Dynamics CRM, Microsoft Dynamics Live CRM
INDUSTRY FOCUS:	General - Applicable to All
PRODUCT/PLATFORM:	Windows Azure Platform

App Overview **Reviews** **Company**

Email Marketing for Microsoft Dynamics CRM has an overall rating of  from 1 customer.

Submit A Review

The views and opinions submitted and expressed here are not those of Microsoft.

Sort by: **Newest First** [Oldest First](#) [Highest Rated](#) [Lowest Rated](#)

Highly integrated tool for smart email campagins and beyond **4.0** 

REVIEWED BY: Jukka_CRM REVIEWED ON: 7/27/2010

PROS
The Email Marketing module from CoreMotives really fits well into the CRM user experience, due to the fact that it has been designed to work inside Dynamics CRM, unlike some other competing products where the CRM integration has later on been added as a feature. Flexible pricing without user or server licenses helps drive wider adoption beyond just the marketing department.

CONS
The retrofit to CRM version 3.0 created some usability issues

PRICE:	
DEPLOYMENT TIME:	
NEEDS MET:	
COMPATIBILITY:	
PERFORMANCE:	

31.10.2010

Microsoft Dynamics CRM 2011 Walkthrough by Jukka Niiranen

76

Listing requirements

- Two separate categories for applications:
 - Certified for Microsoft Dynamics (CfMD)
 - Community-rated solution
- Requirements for certified applications
 - Application must pass the CfMD software tests
 - 10 customer references
 - MS Gold Certified Partner status
 - Sure Step certification exam
 - Escrow service must be used for storing IP assets such as source code and documentation

Azure

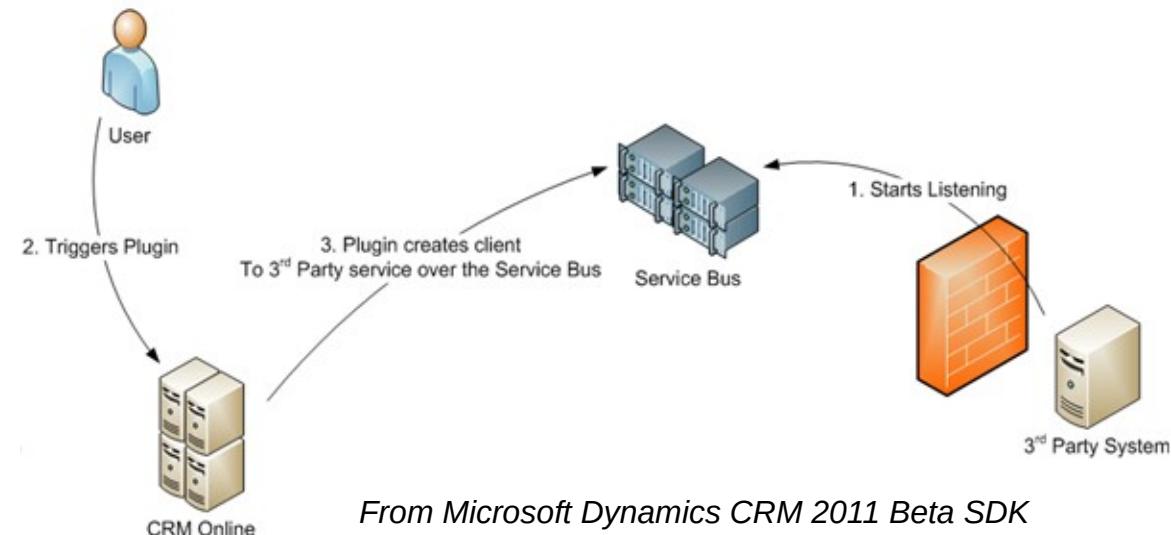
AppFabric

- Service Bus for messaging between applications
 - Bridges on-premises and cloud applications
 - Exposes applications through corporate firewalls
- Access Control Service for authentication
 - Windows Identity Foundation (WIF) integration
 - Supports OAuth, OpenID, Windows Live ID, Google, Facebook...
 - On-premises requires purchase of a private certificate, Online certificate available from MS



Integration through Service Bus

- CRM 2011 Online event execution pipeline has been exposed to AppFabric Service Bus
- Allows posting data processed in CRM events to Service Bus through a CRM plug-in
- Can be used for integration scenarios where CRM Online must exchange data with on-premises applications



Upgrading

System requirements

- Server
 - Only 64-bit SQL and IIS servers are supported
 - Windows Server 2008, SQL Server 2008
 - Exchange 2003, 2007, 2010, Online (optional)
 - SharePoint 2007, 2010 (optional)
- Client
 - Office 2003 (SP3), 2007, 2010
 - Internet Explorer 7, 8 (Beta does not yet support IE9)
 - 32-bit or 64-bit

Upgrade paths

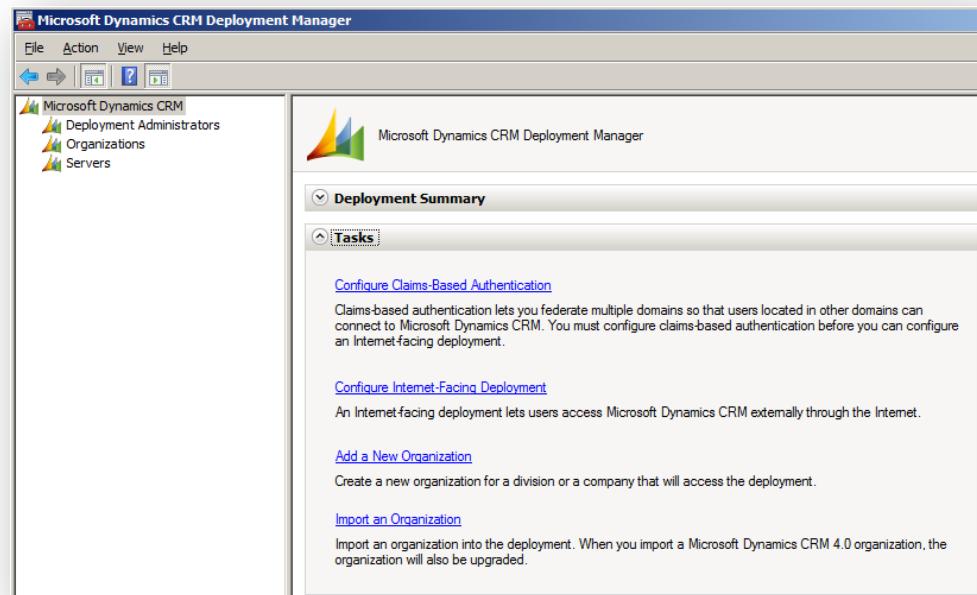
- Migration
 - Recommended option, allows import per organization
 - Old CRM4 instance can remain operational during upgrade
 - Separate SQL Server instances required
- Connect to existing
 - Install new CRM server, upgrade existing SQL database
- In-place
 - Most simple process, but old server environment must meet 2011 requirements
- CRM 3.0 environments must first be upgraded to CRM 4.0 (can use trial version)

Client upgrade

- CRM 4.0 Outlook clients (UR7+) are compatible with CRM 2011 server
- CRM 2011 clients are NOT compatible with CRM 4.0 server
- New client cannot be pre-deployed, client upgrades to be performed after server upgrade
- CRM 4.0 Offline client changes can be updated to CRM 2011 server, but Go Offline is not available for CRM 4.0 clients after server upgrade

CRM 4.0 / 2011 customizations

- You can't directly import CRM 4.0 customizations into CRM 2011 system
- However, you can import a CRM 4.0 organization through the Deployment Manager



Accelerators

- New versions of the accelerators will be released, as stated by Microsoft
- However, unlikely to be available at CRM 2011 RTM/RTW
 - Latest estimate: 6 months after CRM 2011 RTW
- Upgrading an existing CRM 4.0 instance to CRM 2011 with the accelerator components installed may work, but there's no guarantee on functionality

Virtual machines for CRM 2011

- Everything is x64 now (IIS, SQL) = no more MS Virtual PC or MS Virtual Server images
- Hyper-V is an option if you're running Windows Server 2008 on your PC
- If not, go for Oracle (Sun) VirtualBox
- Creating a virtual machine with VirtualBox:
 - <http://crmscape.blogspot.com/2010/09/creating-ms-crm-2011-vm-part-1-of-2.html>

Code compatibility

Web service

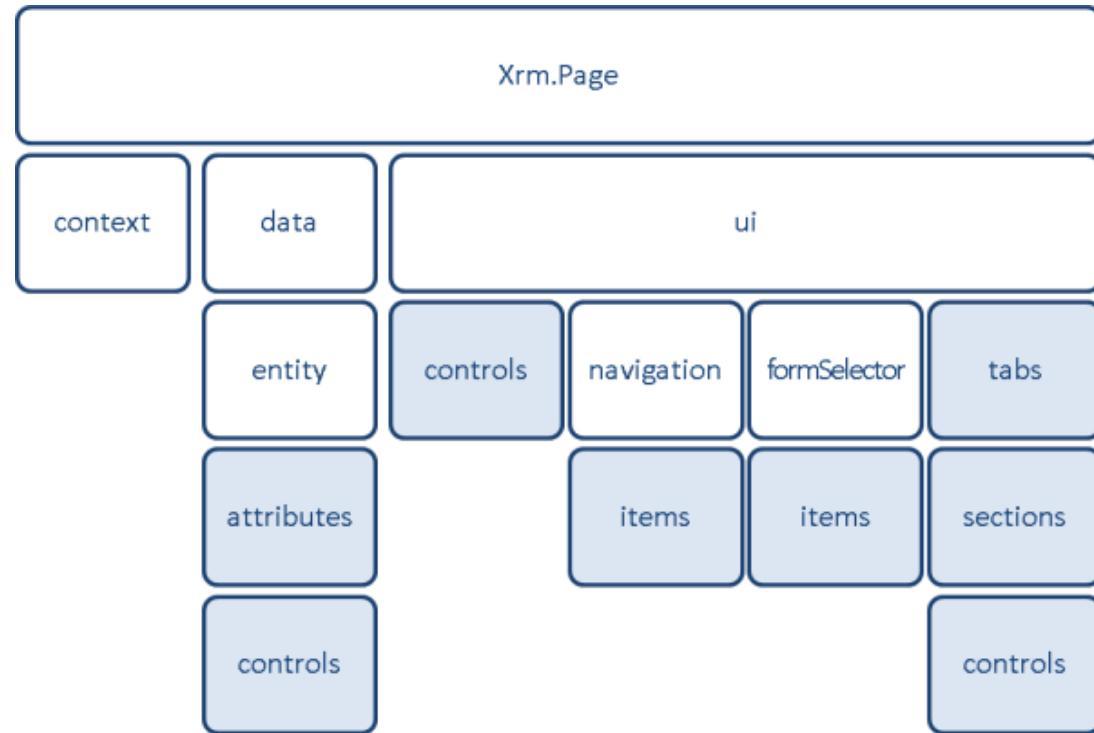
- CRM 4.0 web service endpoint (2007) is supported, CRM 3.0 (2006) is not available
- Web service authentication through WCF

Plug-ins

- Sandbox (isolation mode) not available for CRM 4.0 plug-ins
- CRM 3.0 plug-ins (callouts) are not supported

crmForm object is deprecated

- Xrm.Page object is the new namespace
- crmForm backward compatibility but with limited features



From Microsoft Dynamics CRM 2011 Beta SDK

Form scripts

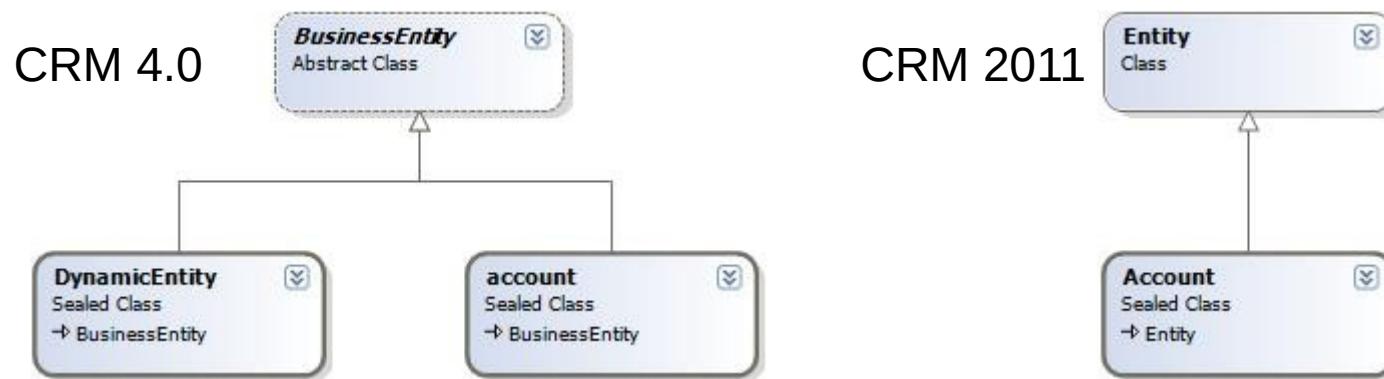
- Changes in the Client API scripting model and namespaces
 - Old: `var AccName = crmForm.all.name.DataValue`
 - New: `var AccName = Xrm.Page.getAttribute("name").getValue()`
- Javascript converter for CRM 4.0 scripts:
<http://crm2011scriptconvert.codeplex.com/>
- During the upgrade from 4.0, old form scripts will be converted into .js Web Resources

ISV folder is deprecated

- Calling the 2011 Web services from the <crmwebroot>\ISV folder is no longer supported
- Custom ASPX pages in the ISV folder work after CRM 2011 if they meet the criteria listed in SDK

No more Dynamic Entity

- Dynamic Entity has been replaced with the base class Entity



From Microsoft Dynamics CRM 2011 Beta SDK

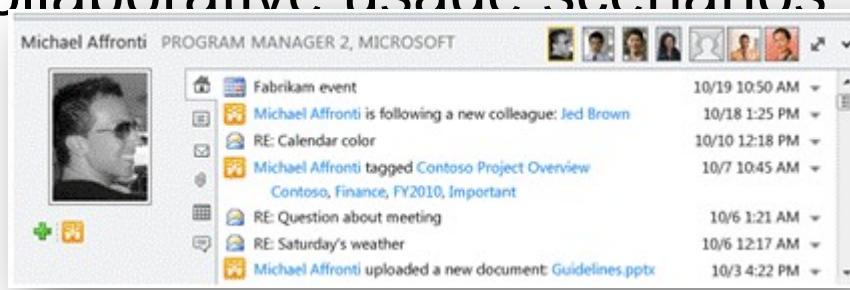
What's not there

Search improvements

- No Outlook / Windows Search type of “global search” functionality for searching across different entities
- No “Google style” full text search for using multiple search terms in same search field
- Indexing CRM data with SharePoint through BDC (2007) / BCS (2010) can be used to overcome the search functionality limitations

Activity streams

- Microblogging á la Yammer or Salesforce.com Chatter is not a Dynamics CRM feature
- SharePoint 2010 activity streams are the closest match in Microsoft's portfolio, integration with CRM data and events could possibly bring more “Enterprise 2.0” flavor to Dynamics CRM in collaborative usage scenarios



Example of microblogging add-on for Dynamics CRM:
[Vibe by Sonoma Partners](#)

Social media integration

- Social CRM is a huge trend, but Microsoft has not included out-of-the-box connectivity to any social networks in Dynamics CRM 2011
- Outlook Social Connector does integrate with CRM Outlook client reading panes, but the data is purely inside the Outlook client, not trackable to the CRM database
- Updated Accelerators expected, will offer some level of social media integration
 - Current CRM 4.0 Accelerator was not updated after Twitter switched to OAuth in August...

Customer fields

- You can't create a Customer field that would act in the same way as the fields on default entities like opportunities etc.
- However, creating a new custom activity entity automatically adds such a field
- Currently there is no supported way for limiting the existing customer fields' entity types or setting defaults on the OOB entities
 - 4.0 scripts not compatible in 2011

Auto-numbering

- Custom solutions still needed for providing numbering on most entities, such as accounts
- Open source solutions may emerge quickly, as this is such a common requirement & readily available in competing CRM products
- BTW: no calculated fields in CRM 2011 either

Set Auto-Numbering
Specify prefixes for these entities. Select suffix length for the eligible entities.

Contracts	Cases	Articles	Quotes	Orders	Invoices	Campaigns
Prefix * CNR						
Number 1000						
Suffix Length 6						
Preview	CNR-01000-AS7FX3					

Mobile client enhancements

- As of CRM 2011 Beta, the Mobile Express client appears to have the exact same functionality as before
- Windows Phone 7 integration with CRM Online is expected to be announced, other platforms may need to rely on ISV client applications



Corporation [Sign Out](#)

[Accounts](#)

My Active Accounts [Go](#) [Search](#)

Account Name	Main Phone
A Store new name	555-0136
Advanced Components (sample)	555-0135
Affordable Equipment (sample2)	555-0162
Another Test Account	
Basic Company	555-0174
Best o' Things (sample)	555-0145
Blue Company (sample)	555-0131
Designer Goods (sample)	555-0197
Elemental Goods (sample)	555-0127

[Page 1 >](#) [New](#)

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Corporation [Sign Out](#)

[Contacts > Person, Test](#)

[Save](#) [Cancel](#)

Last Name* Person

First Name+ Test

Job Title

Role

- Decision Maker
- Employee
- Influencer

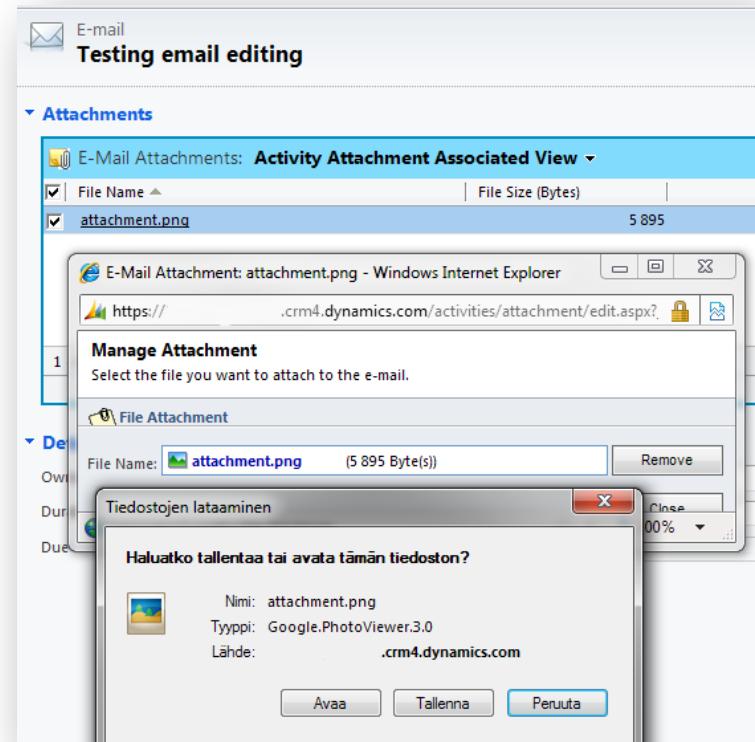
E-mail

Fax

Address 1: Street 1

Email editor enhancements

- As of CRM 2011 Beta, email editing experience in the web client remains the same as CRM 4.0
- No spell checker, user signatures, multiple attachment selection, attachment preview



Hyperlinks in workflow emails

- Feature for including hyperlinks to regarding records in workflow email body text was dropped from CRM 2011
- Custom workflow activities need to be developed for achieving the hyperlinking feature in workflows
 - However, CRM Online will not support custom workflow activities
- Other workarounds known previously, like storing GUID's into entity attributes, can still be utilized

Follow-up activities

- As a result of the deprecation of form assistant, there is no longer a built-in functionality for creating a follow-up activity
- Custom solution could be built with the new Process Dialogs
- However, since Dialogs don't support many field types (such as datetime), implementing identical functionality may be difficult

Thanks for viewing!

Working with Microsoft Dynamics CRM, day in day out



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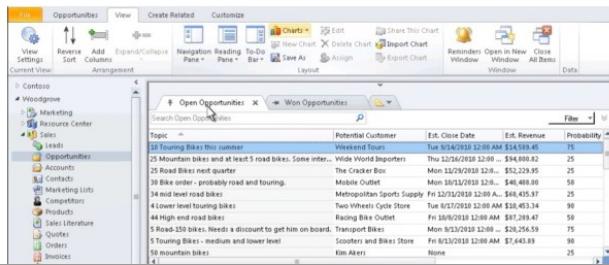
2 comments

Posted on 16th September 2010 by Jukka Niiranen in **Features**

CRM 2011, Office, Outlook, UI

Perhaps the most visible improvement in Microsoft Dynamics CRM 2011 for the end user is the completely revamped Outlook client. Instead of merely wrapping the CRM web client UI inside the Outlook frame with stripped navigation and giving you the all important tracking buttons, the new Outlook client promises additional usability features over the web client. In the demos we've seen, things certainly do look pretty with Outlook 2010, but one question remains: will it blend with the previous versions of Outlook?

Here's a reminder of what Dynamics CRM 2011 Outlook client delivers with Outlook 2010:



About this site

I'm a Microsoft Dynamics CRM specialist from Finland, having worked with the system since 2005. Occasionally when I have a thing to say about the topic, I may post it on my CRM blog, [tweet it](#), save it to [CRM links](#) or bookmark it on [Delicious](#).



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Microsoft BPOS waiting for Exchange 2010 update over a year now, whereas CRM 2011 should launch Online before on-premises.

Hmm... #MSDYNCRM

from Eteläinen, Helsinki

10 Oct



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Video of MS CRM 2011 Online reporting features: <http://t.co/ZzoJ5mN> Includes FetchXML export to VS, embedding RDLs to dashboards #MSDYNCRM

9 Oct



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Finally! Dynamics CRM 2011 now displays the total number of records in the view ("1-50 of 99") #MSDYNCRM #CRM2011 <http://yfrog.com/6z7oup>

6 Oct



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Date fields not supported in Dynamics CRM 2011 process dialogs: <http://bit.ly/crm9cl> - Well, there goes my use cases then #MSDYNCRM #CRM2011

5 Oct

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